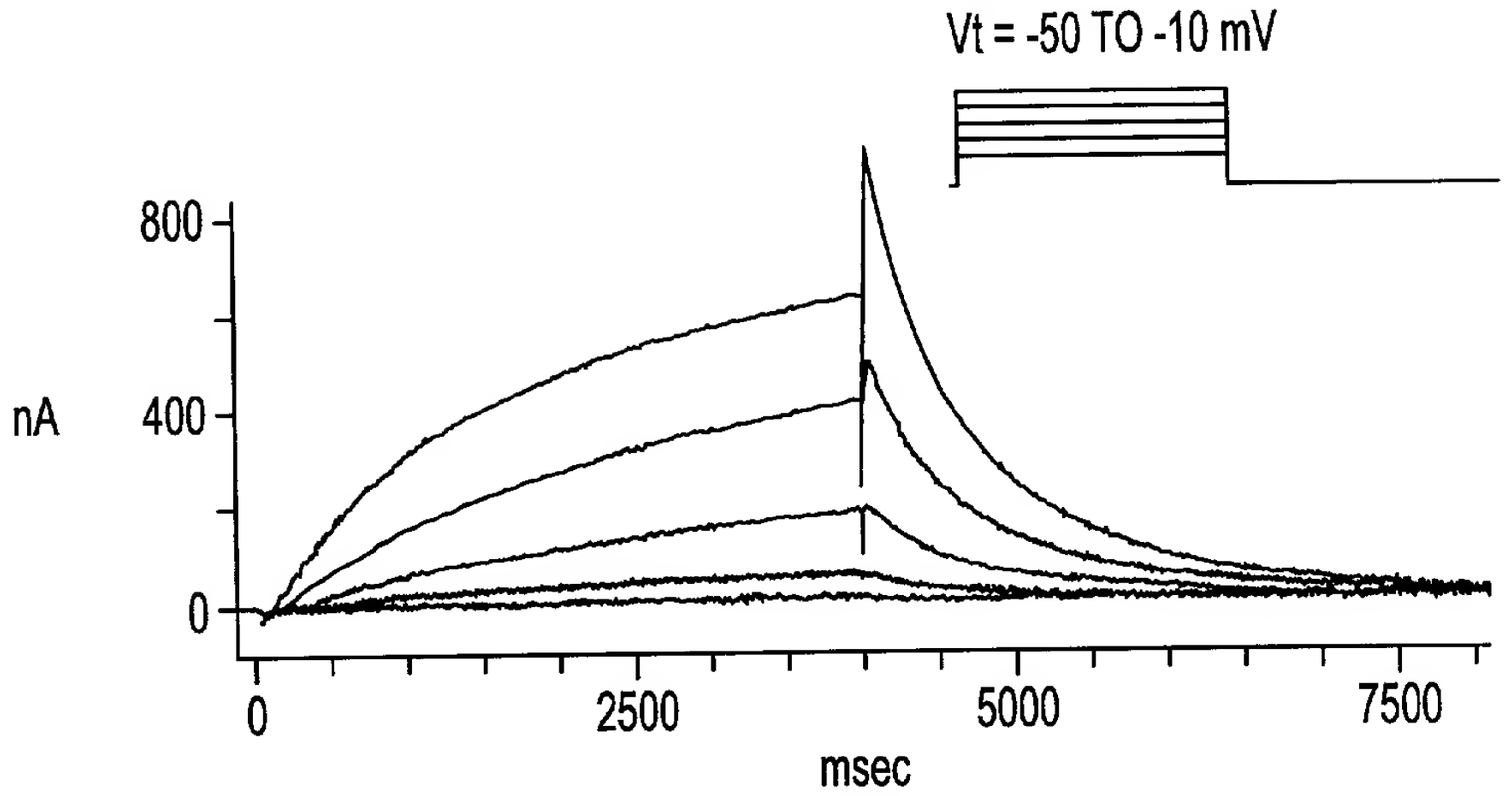
Vt = -50 TO -10 mV
800
nA
400
0
0
2500
5000
7500
msec

FIG. 1A

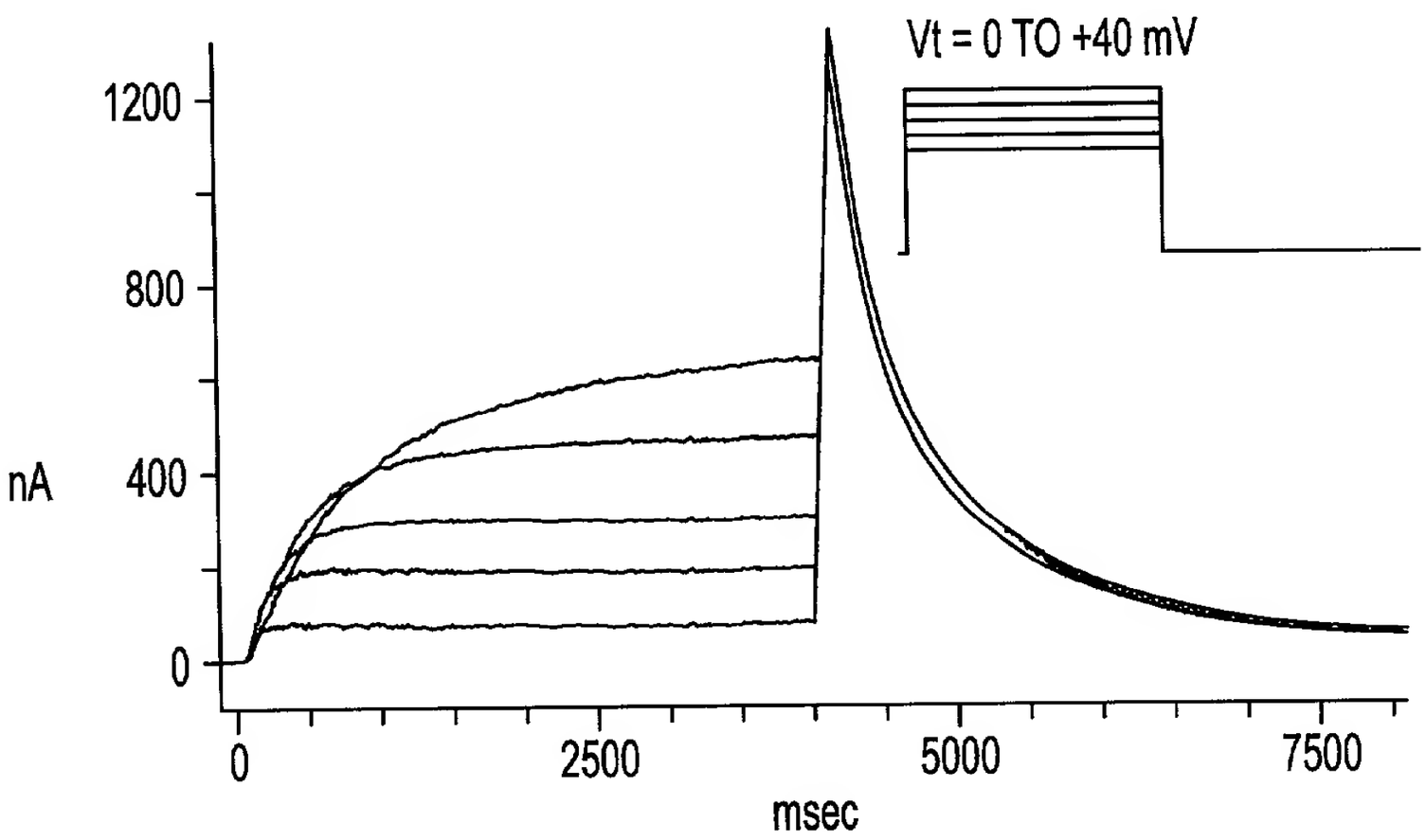
Vt = 0 TO +40 mV
1200
800
nA
400
0
0
2500
5000
7500
msec

FIG. 1B

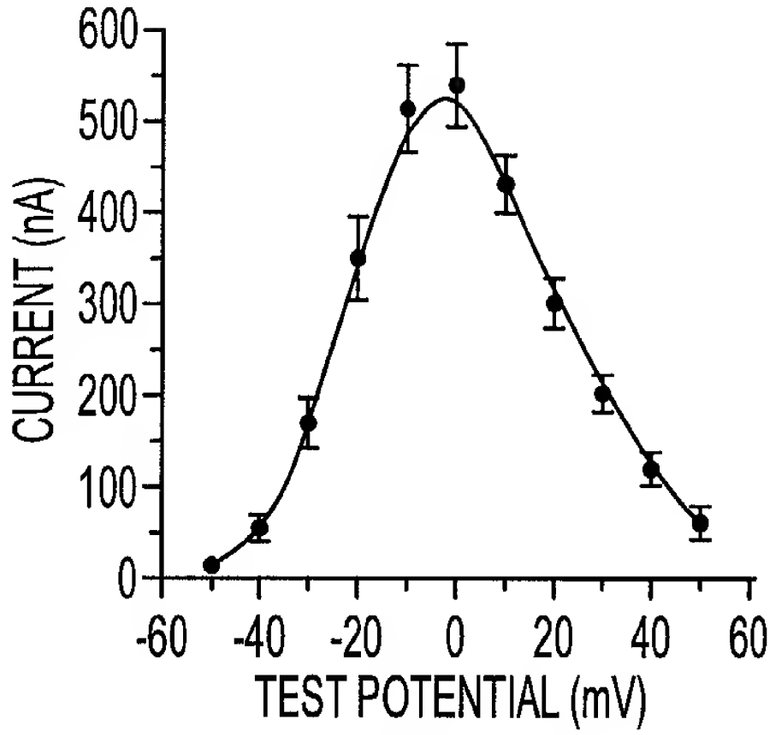

FIG. 1C

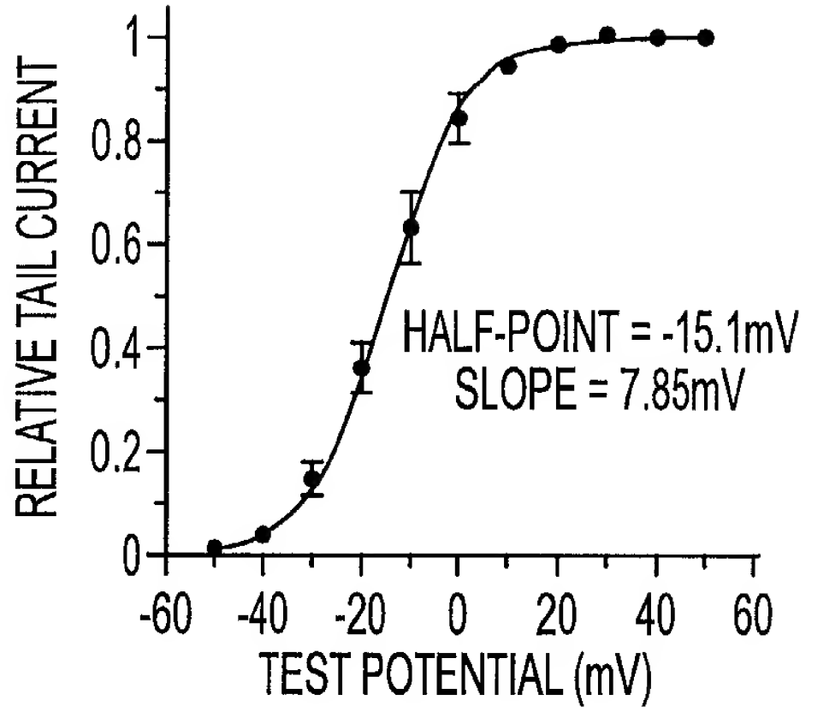

FIG. 1D

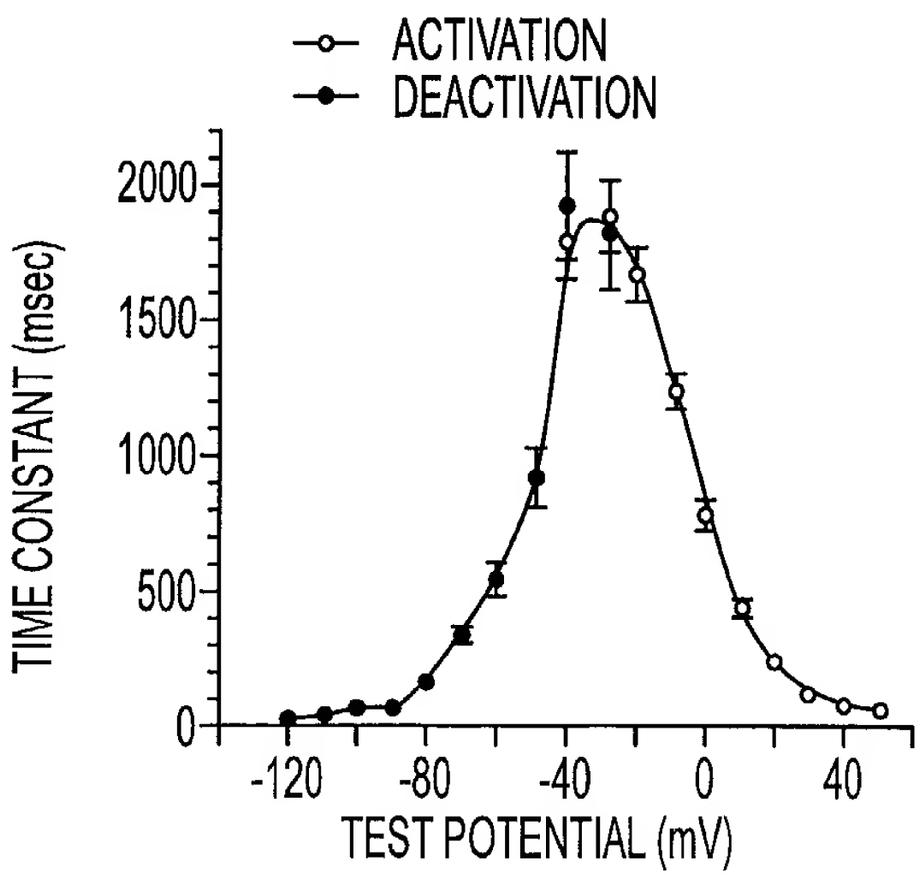

FIG. 2C

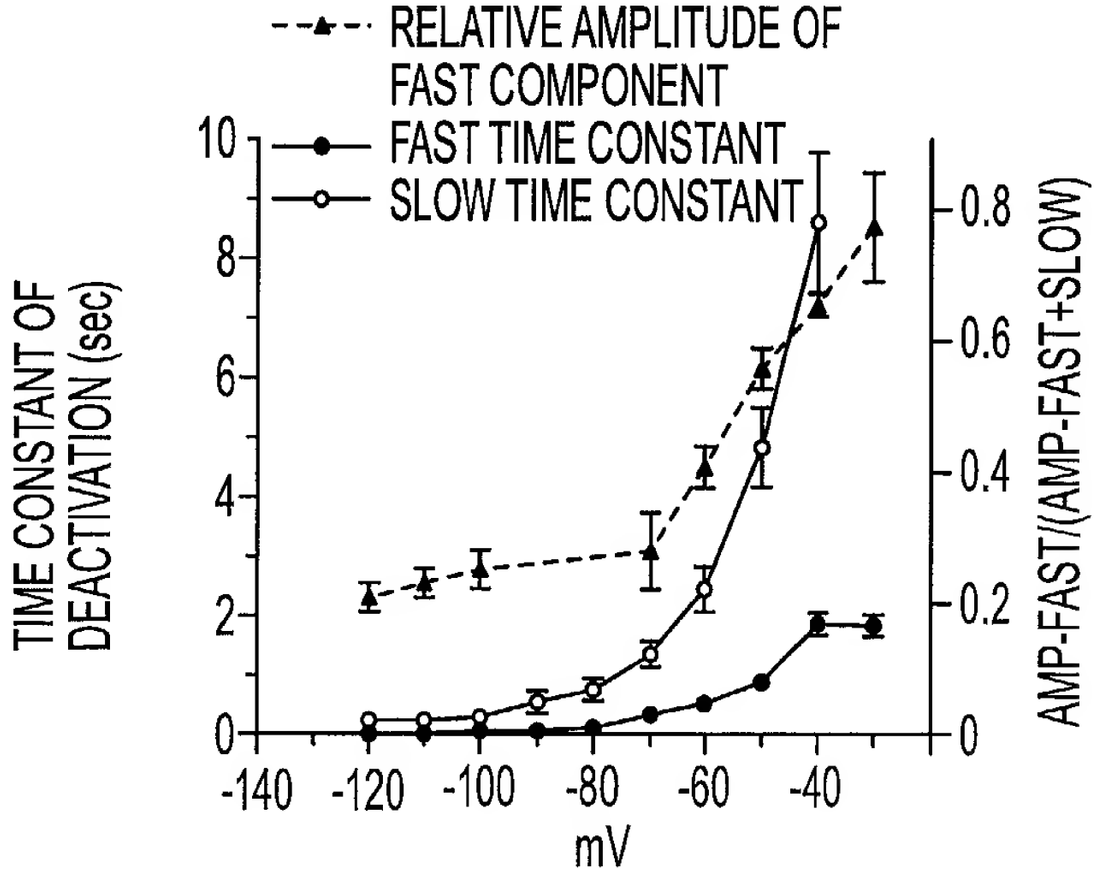

FIG. 2D

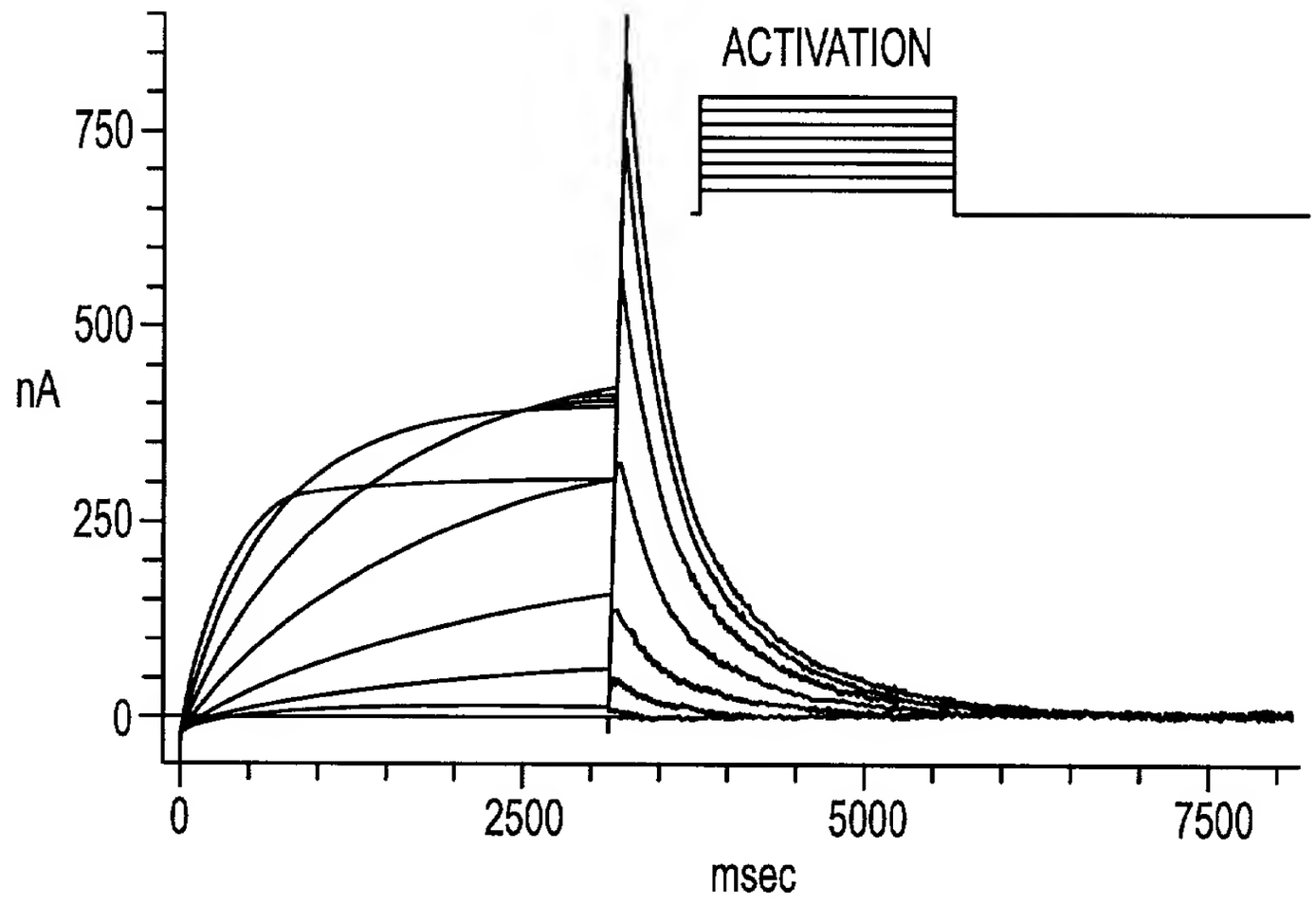
ACTIVATION
750
500
nA
250
0
0
2500
5000
7500
msec

FIG. 2A

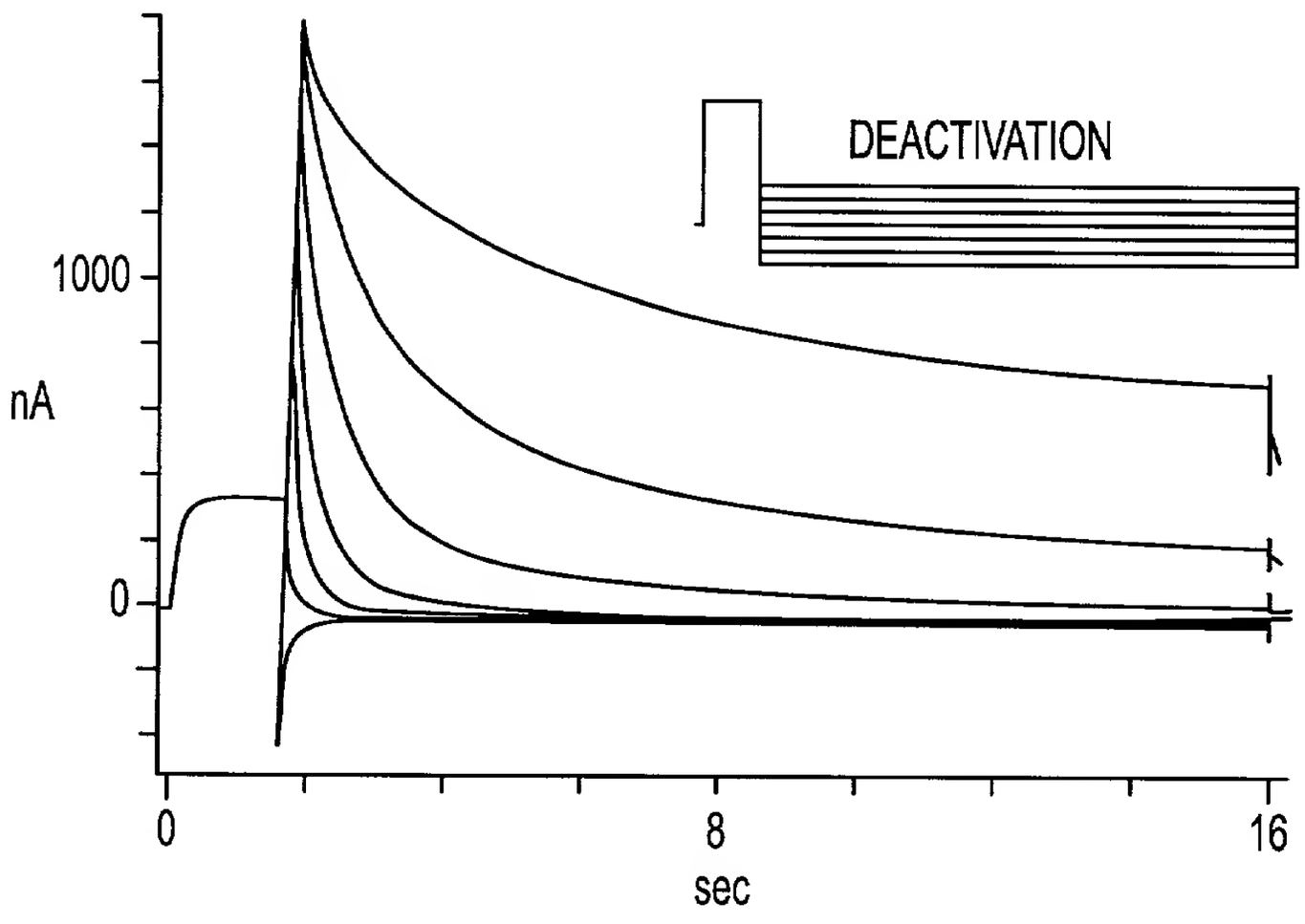
DEACTIVATION
1000
nA
0
0
8
16
sec

FIG. 2B

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of HERG - A Long QT Syndrome Gene
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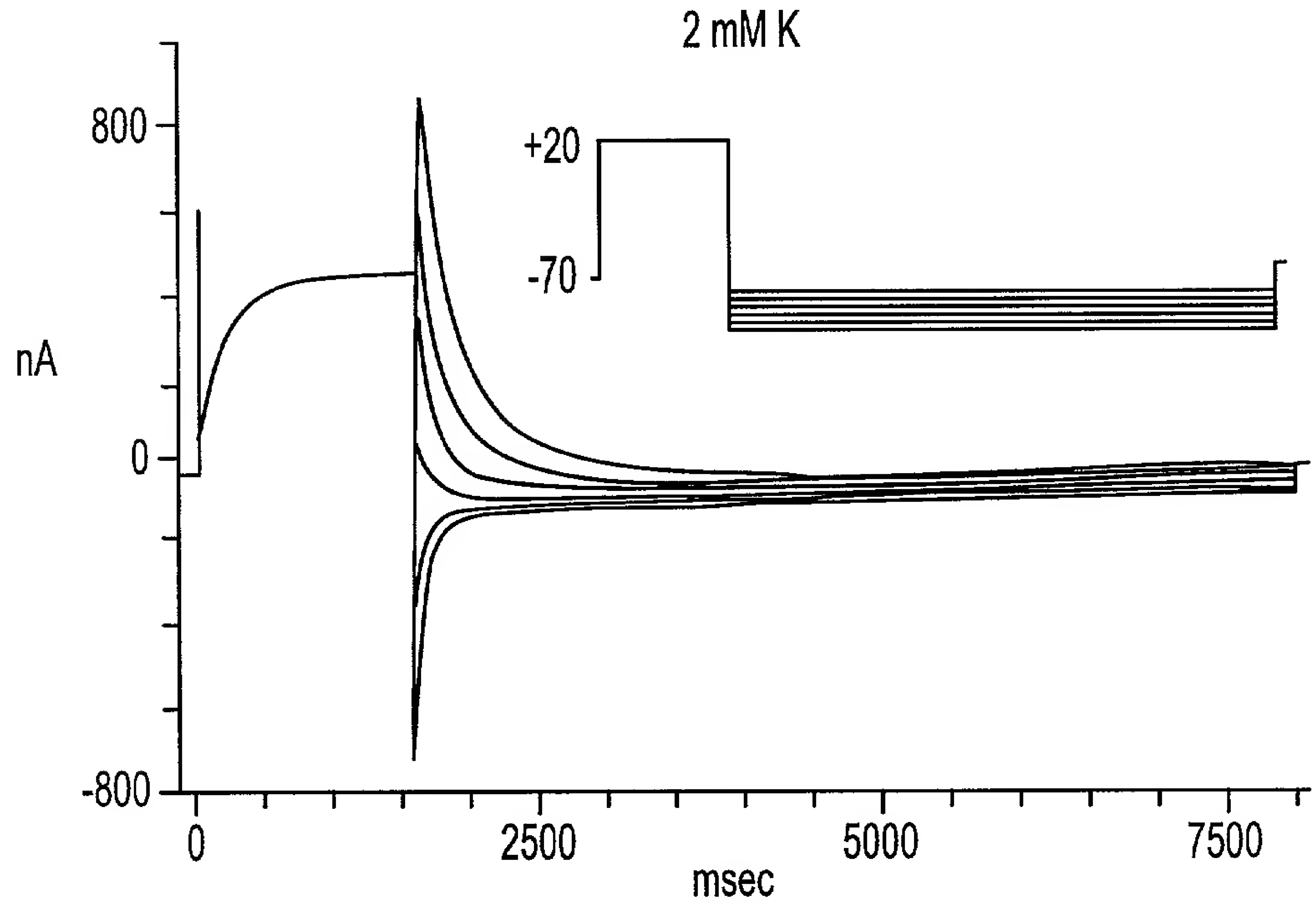

FIG. 3A

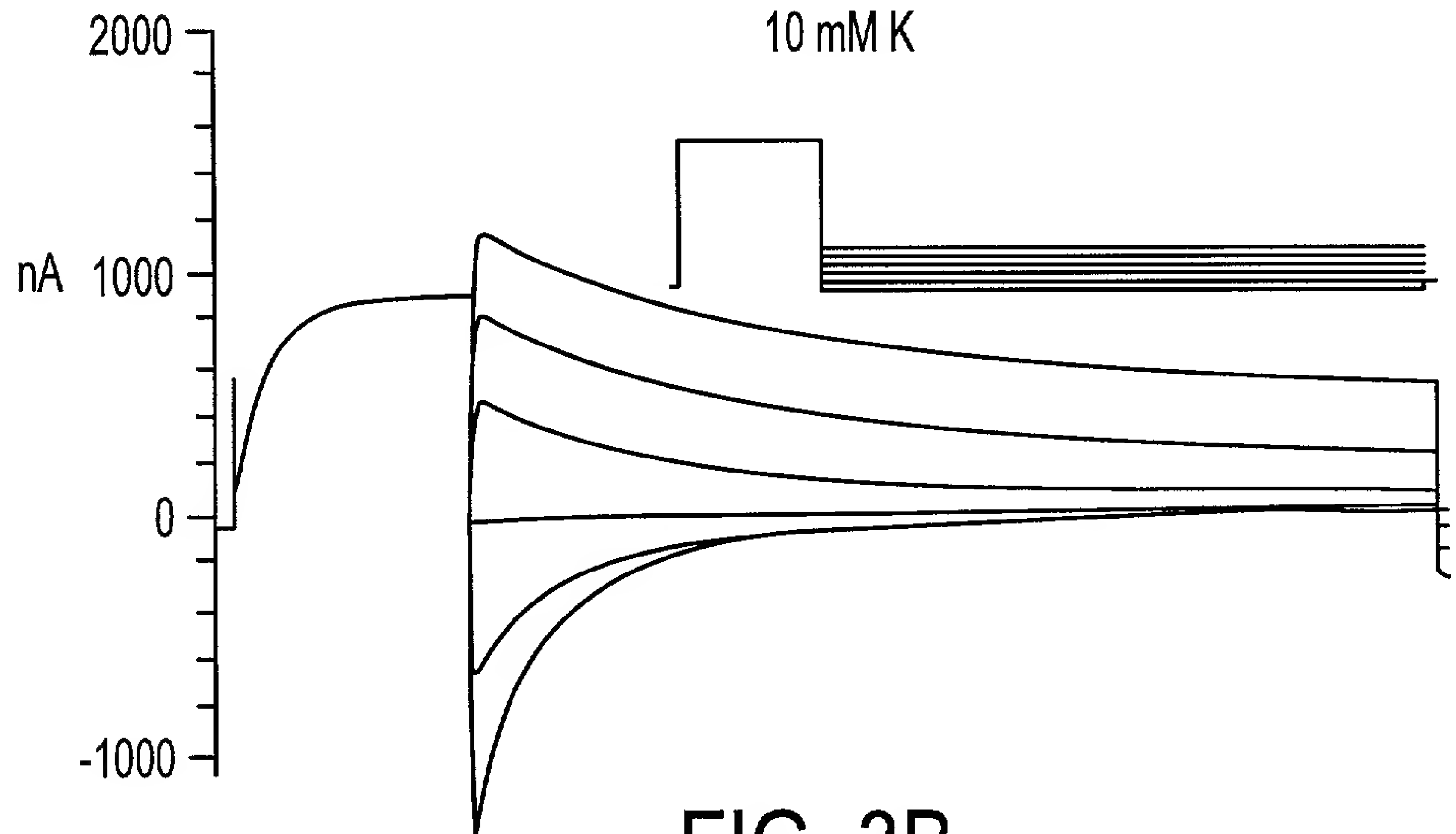

FIG. 3B

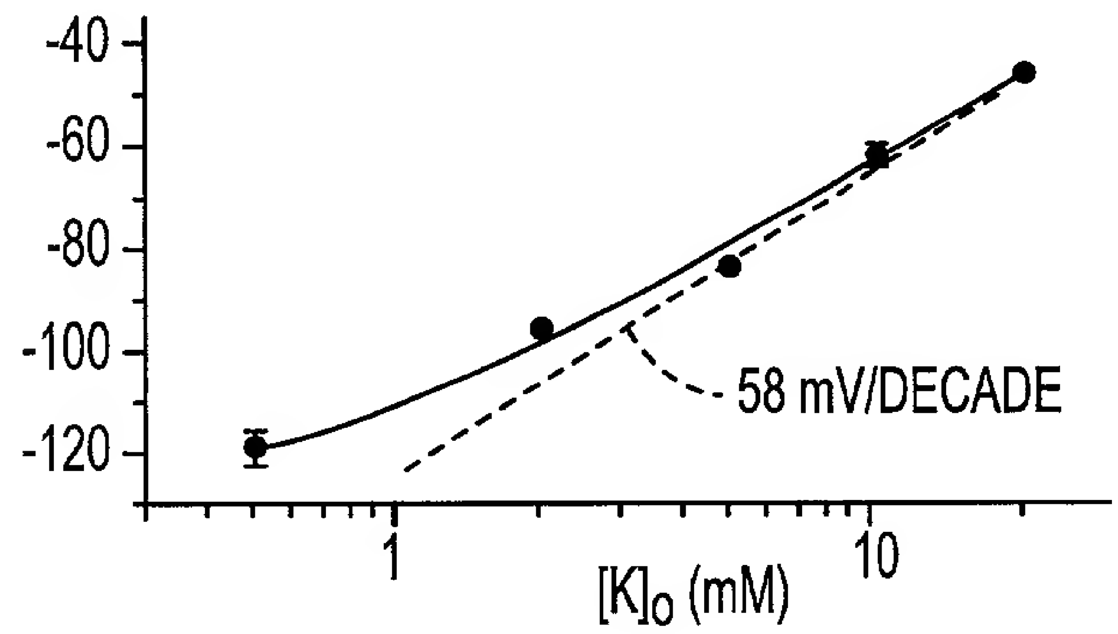

FIG. 3C

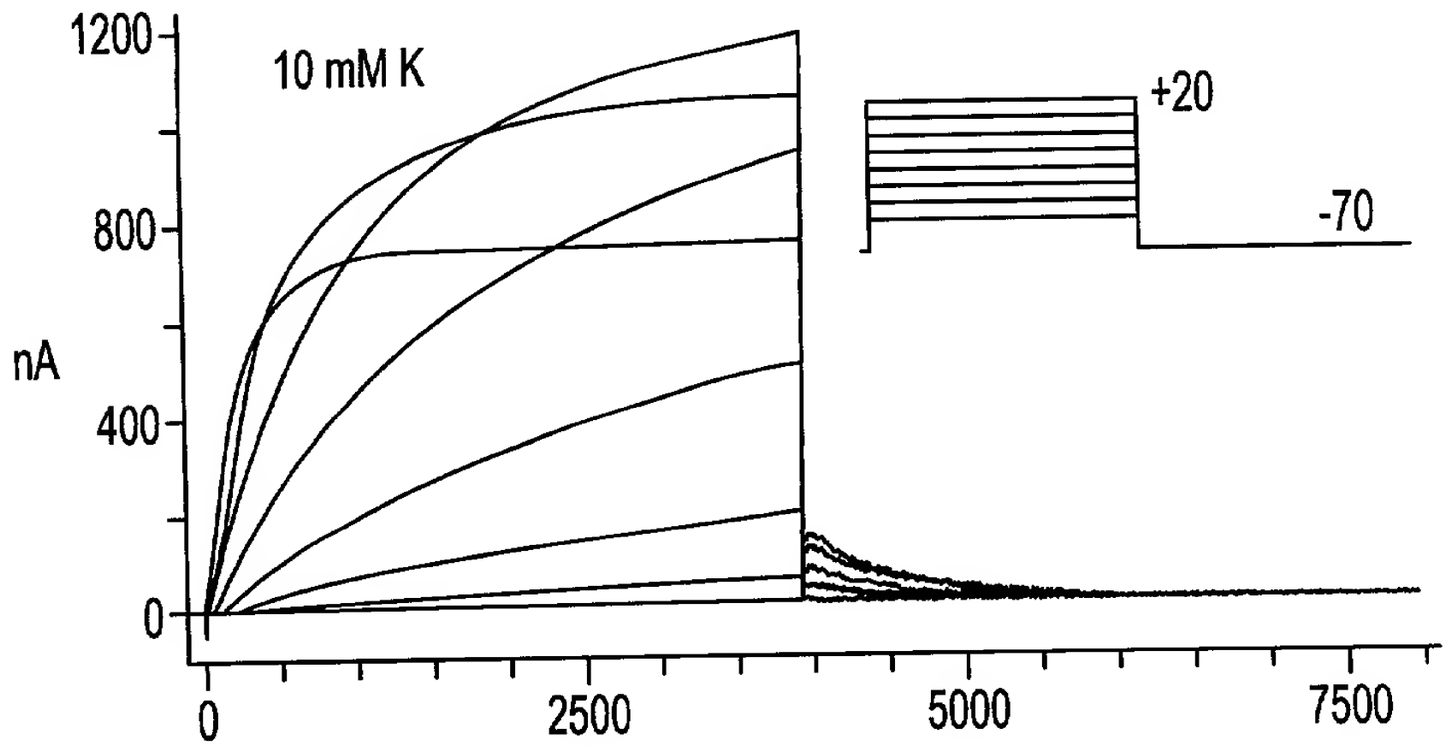

FIG. 4A

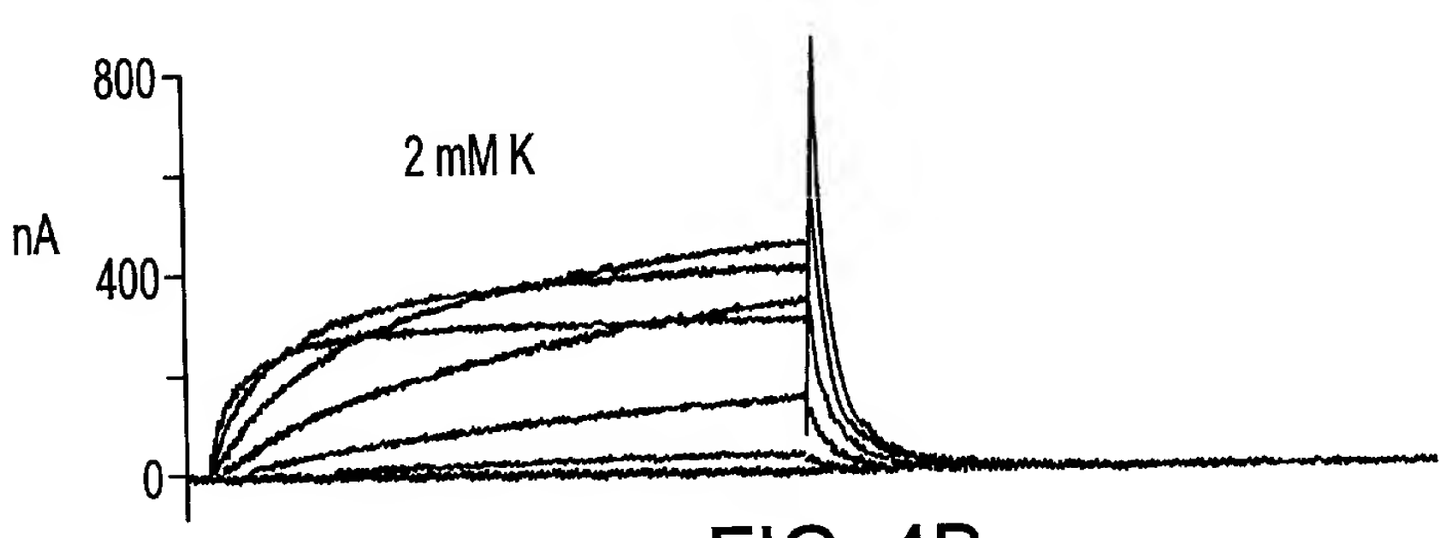

FIG. 4B

FIG. 4C

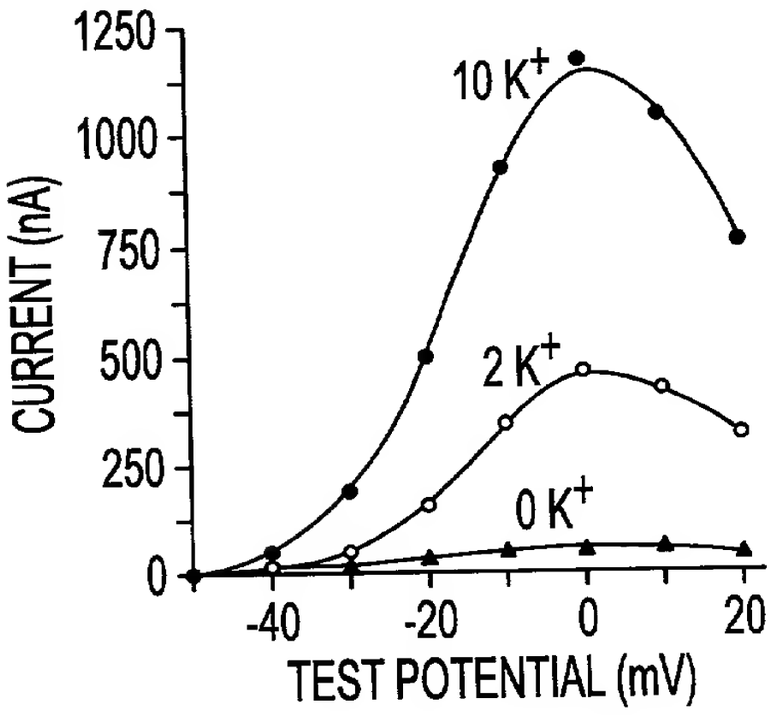

FIG. 4D

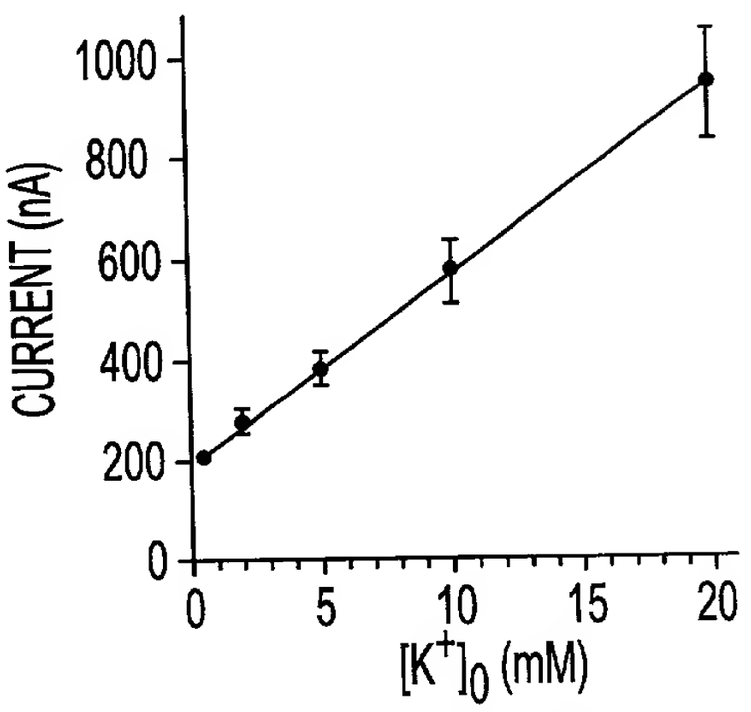

FIG. 4E

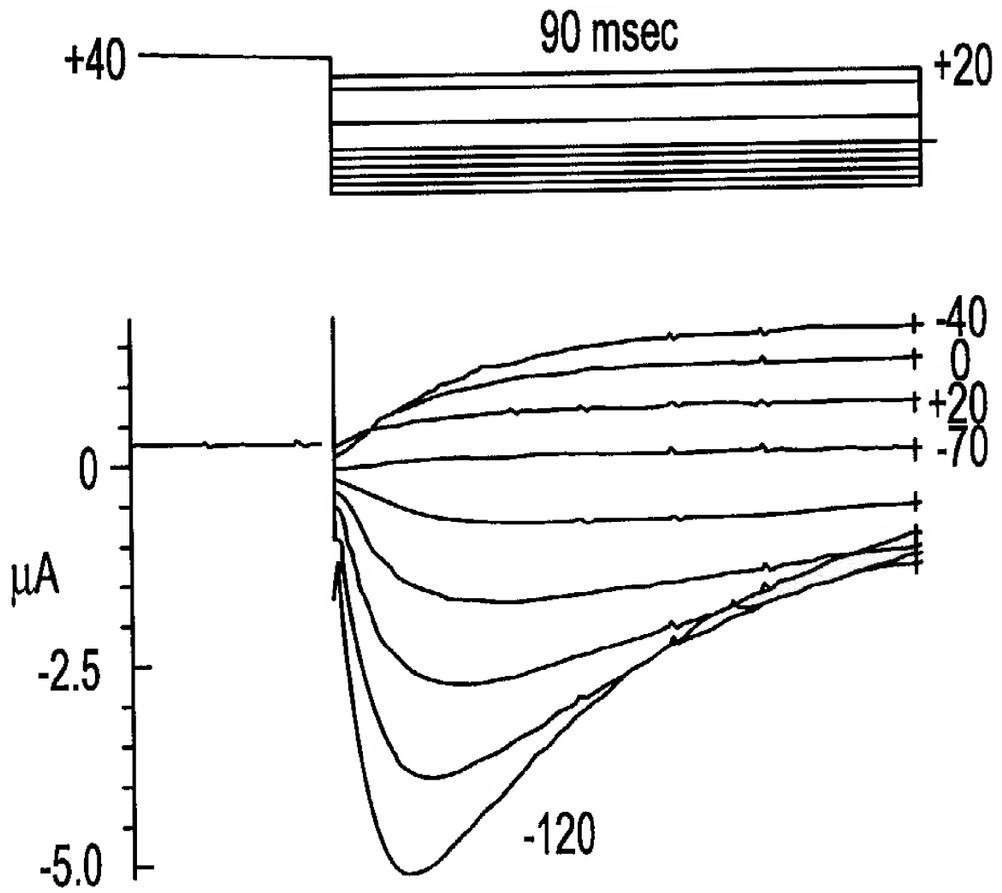

FIG. 5A

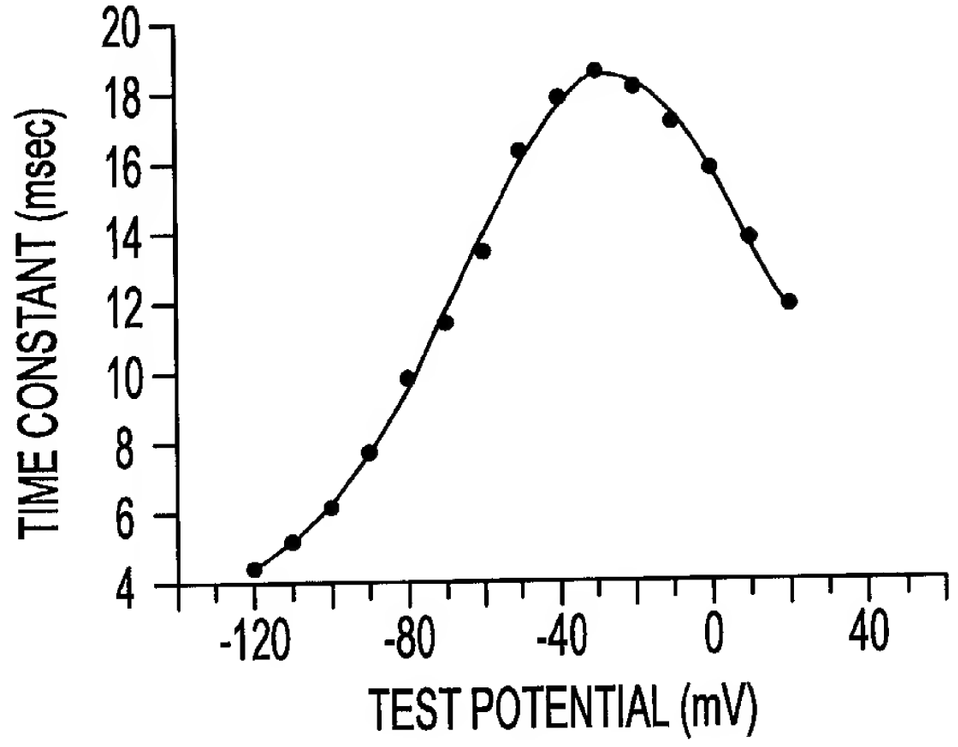

FIG. 5B

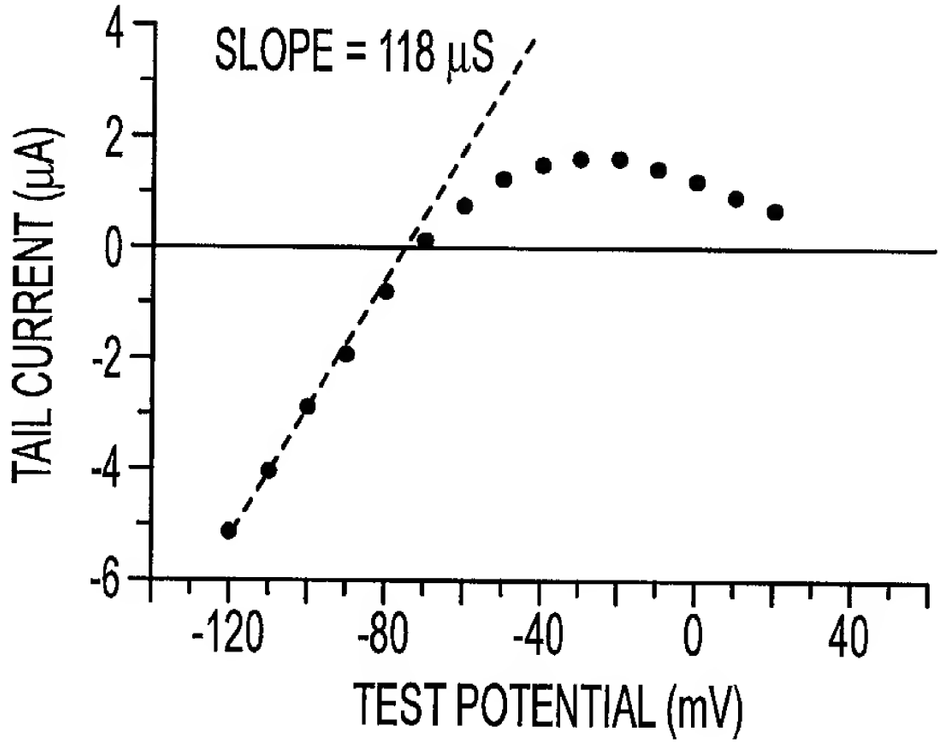

FIG. 5C

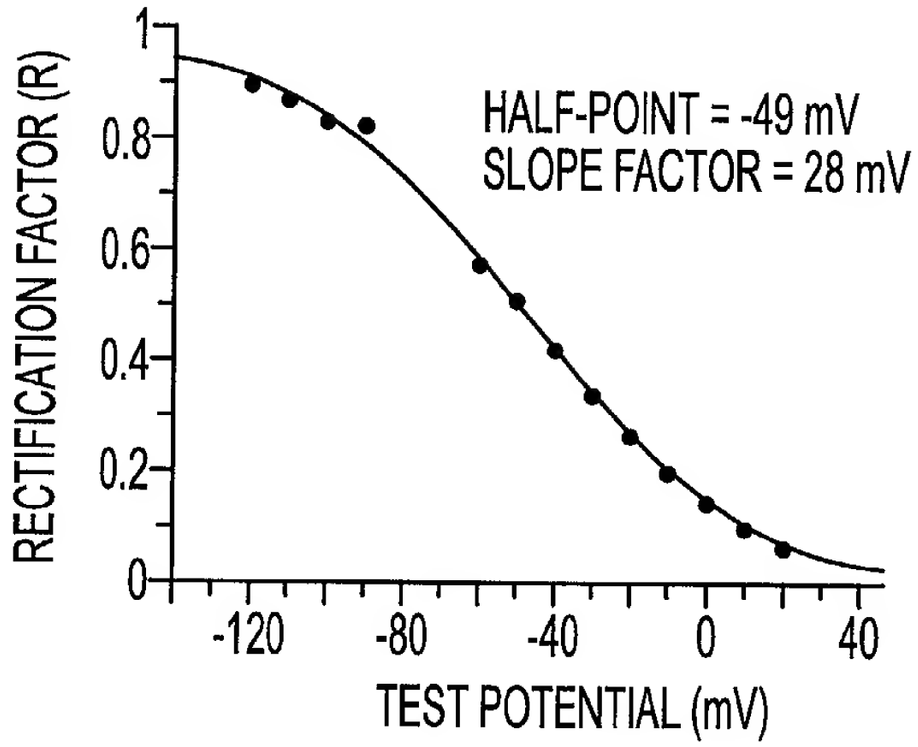

FIG. 5D

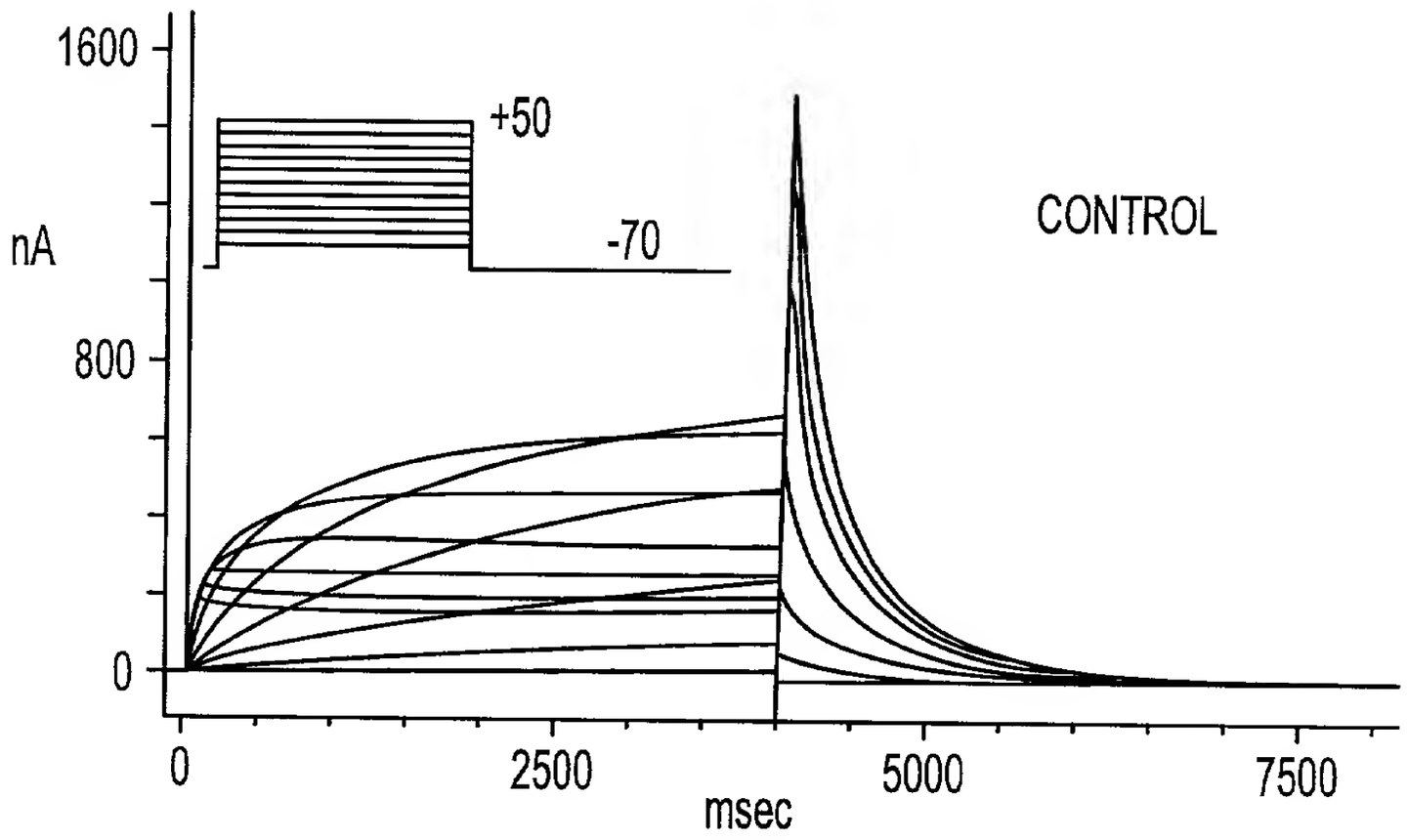

FIG. 6A

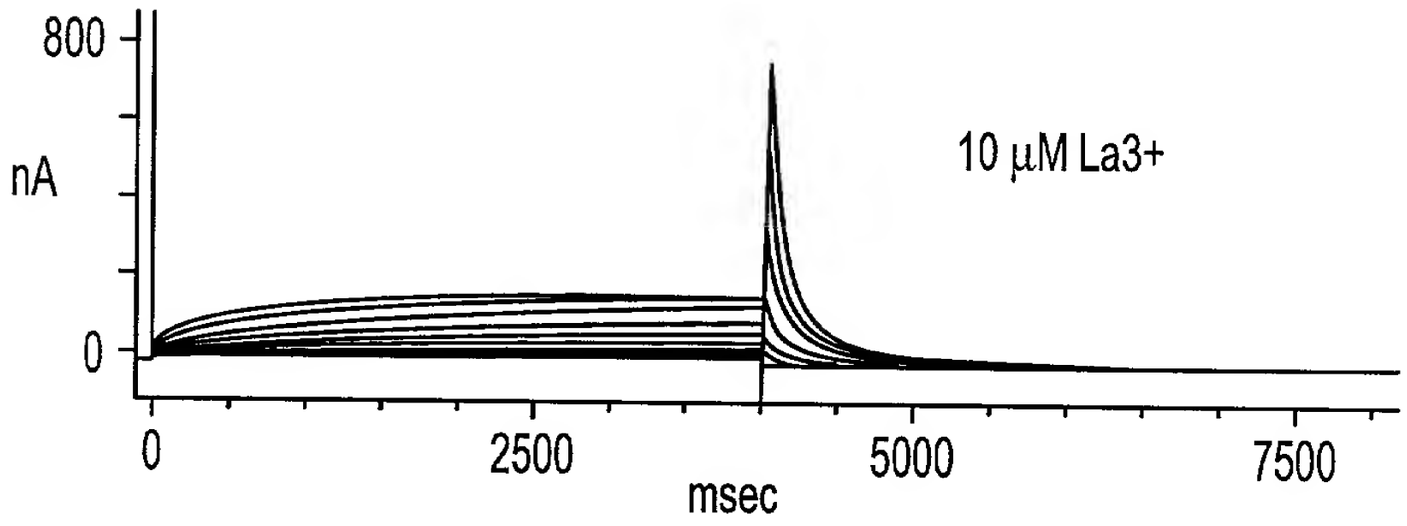

FIG. 6B

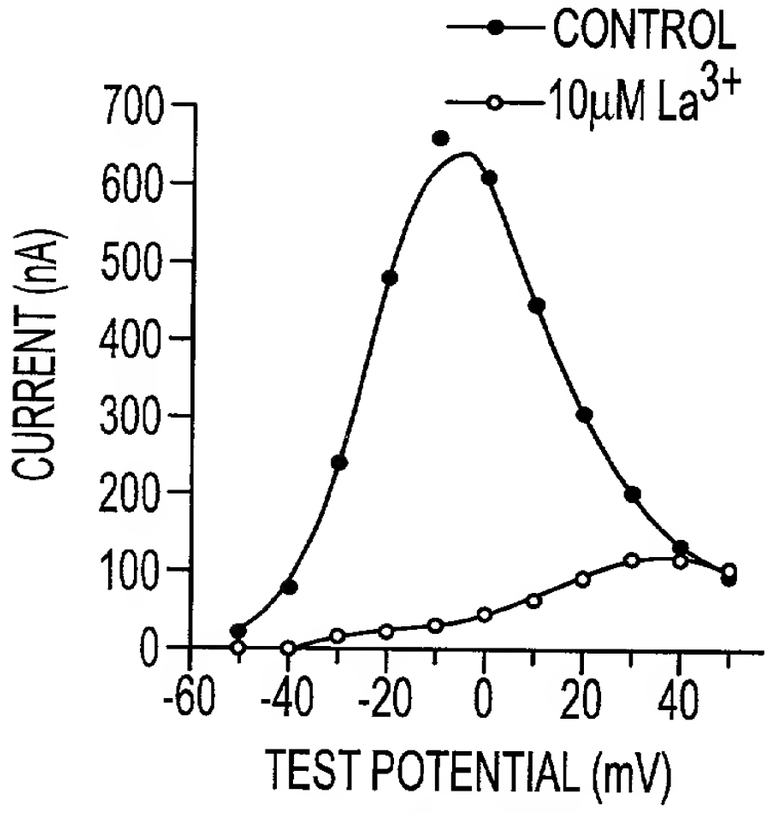

FIG. 6C

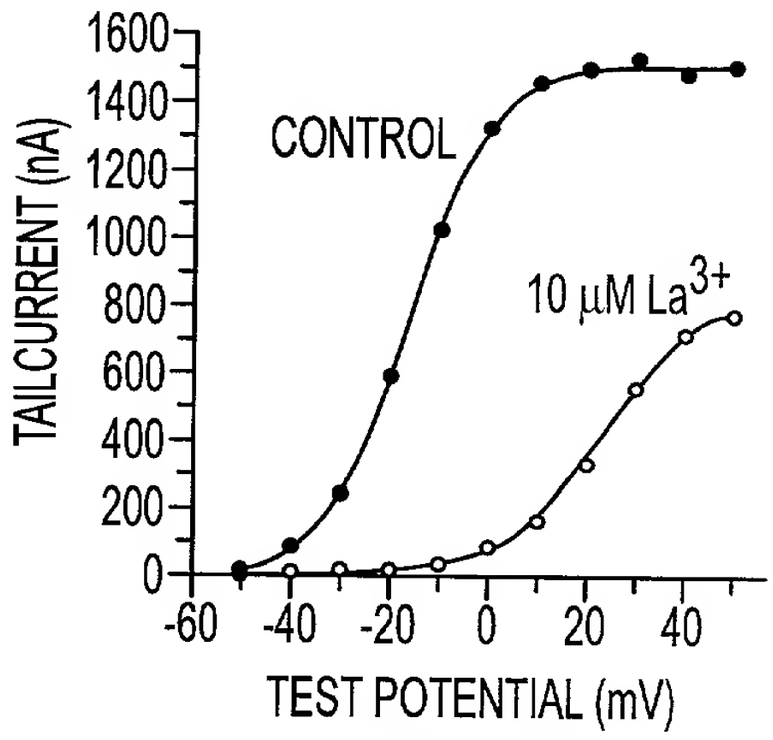

FIG. 6D

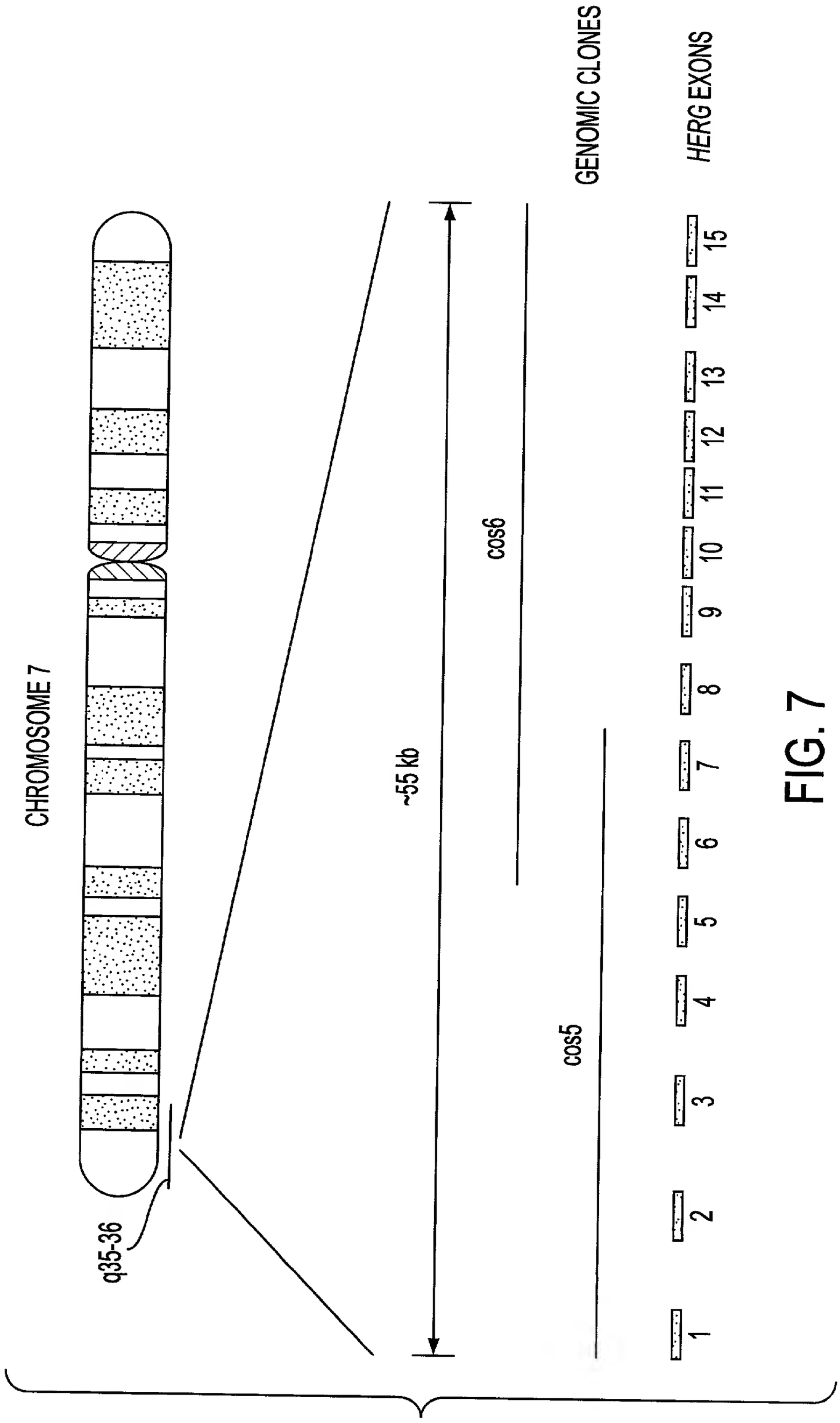
GENOMIC CLONES
HERG EXONS
CHROMOSOME 7
q35-36
~55 kb
cos6
cos5
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

FIG. 7

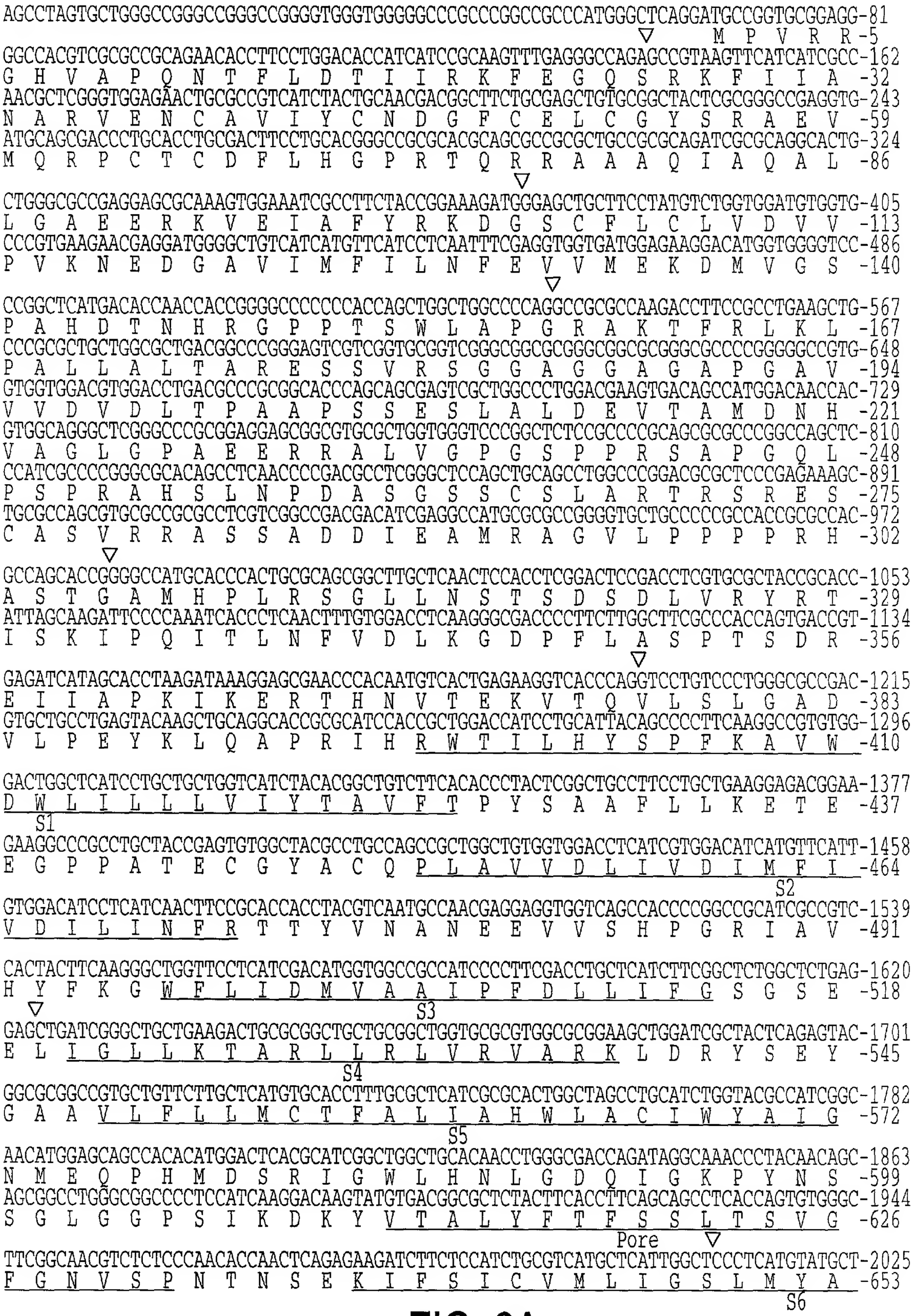

FIG. 8A

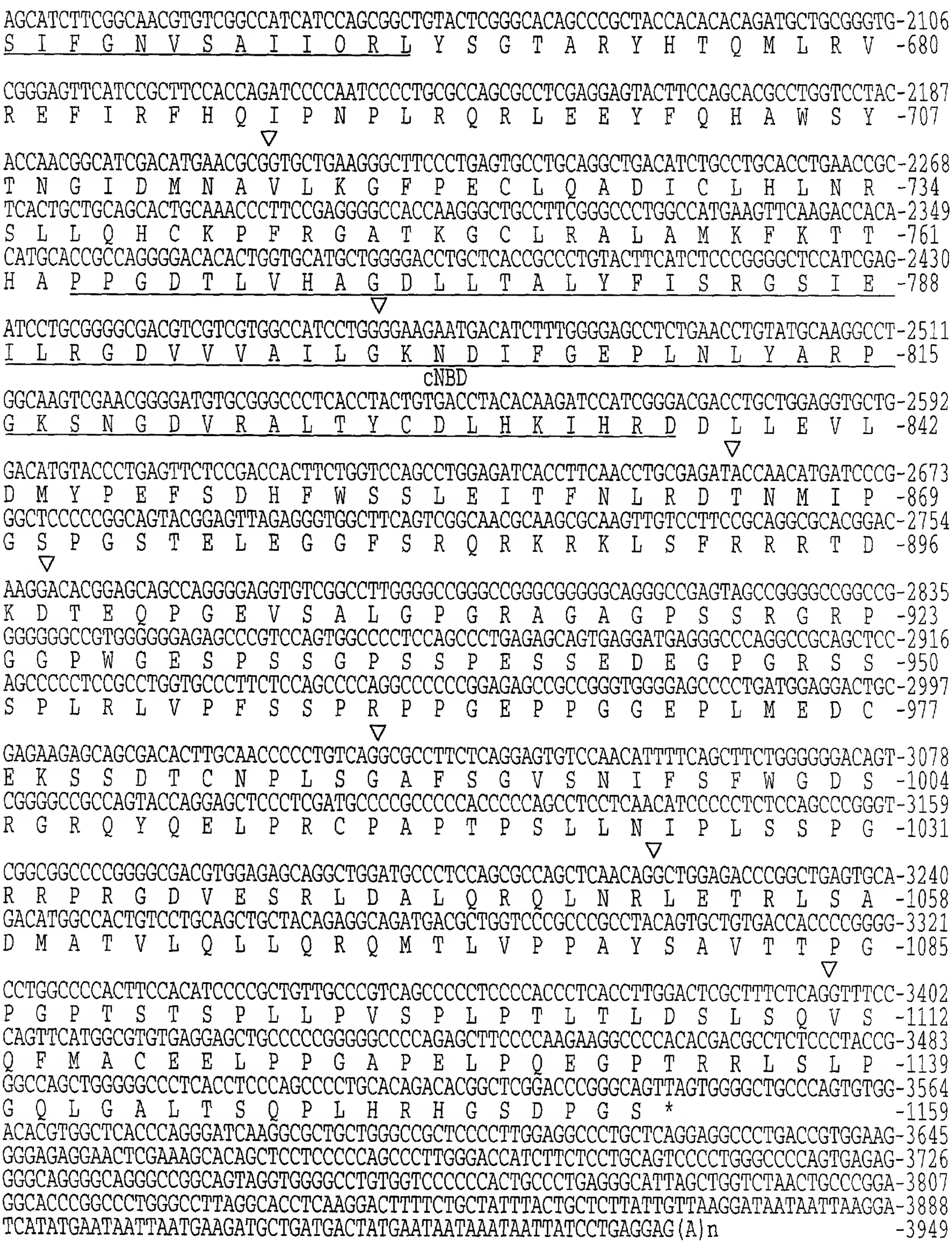

FIG. 8B

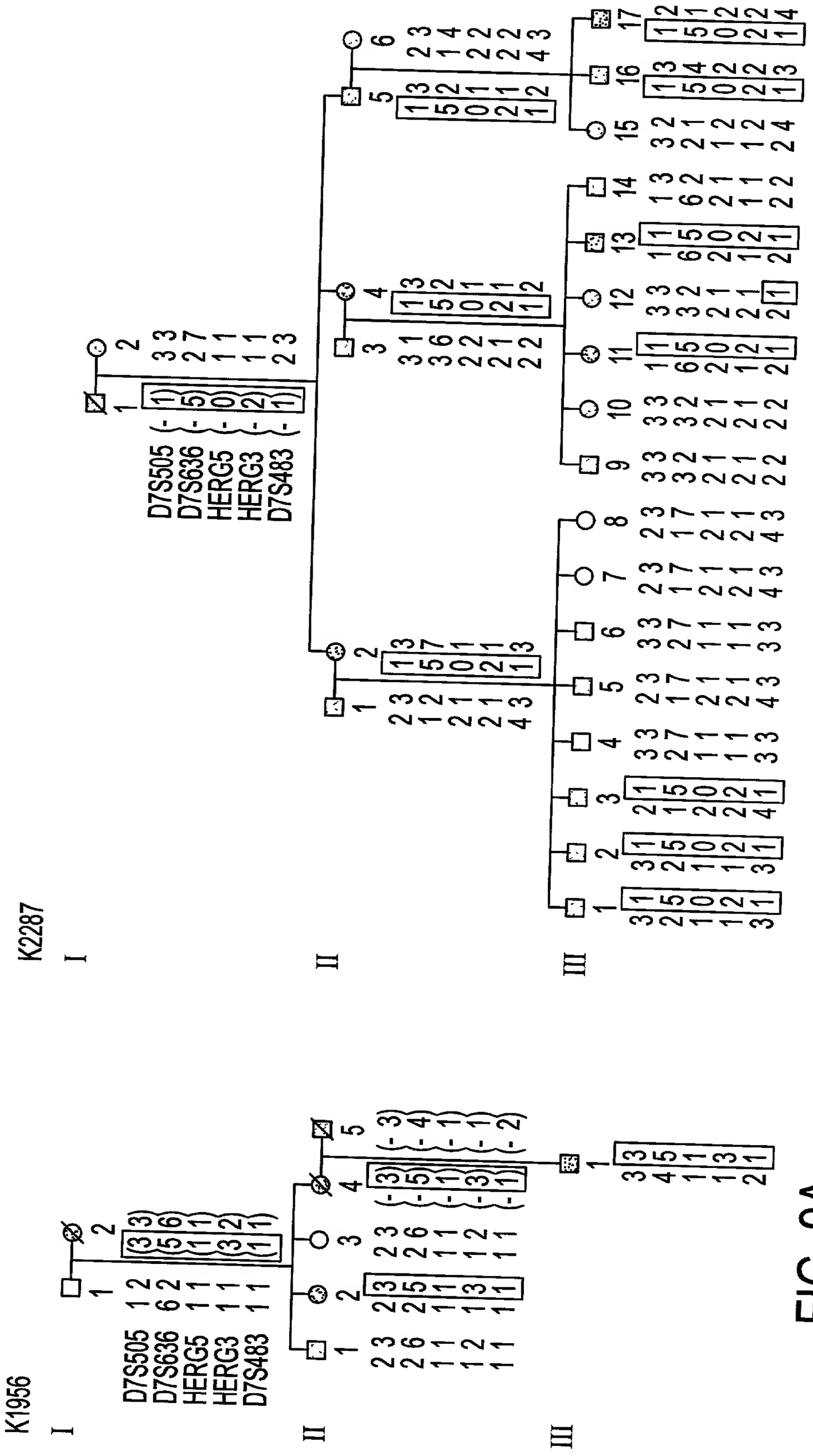
K2287
I
II
III
D7S505
D7S636
HERG5
HERG3
D7S483

FIG. 9B

K1956
I
II
III
D7S505
D7S636
HERG5
HERG3
D7S483

FIG. 9A

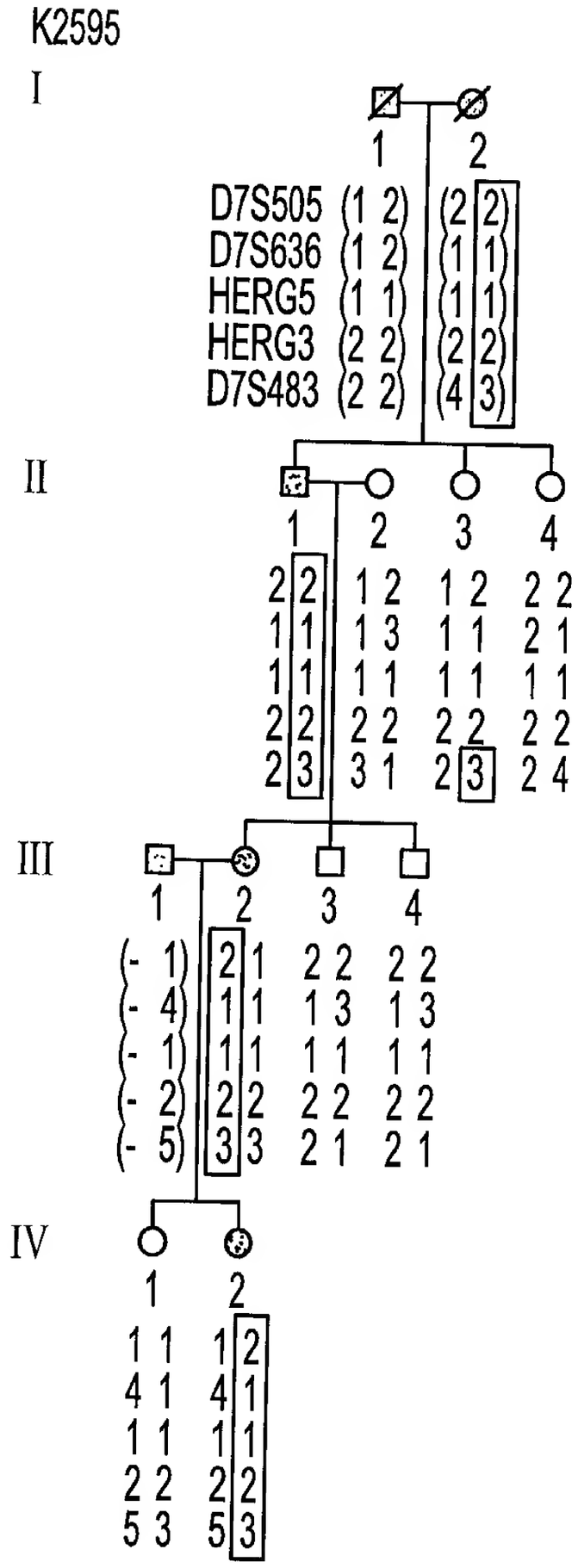

FIG. 9C

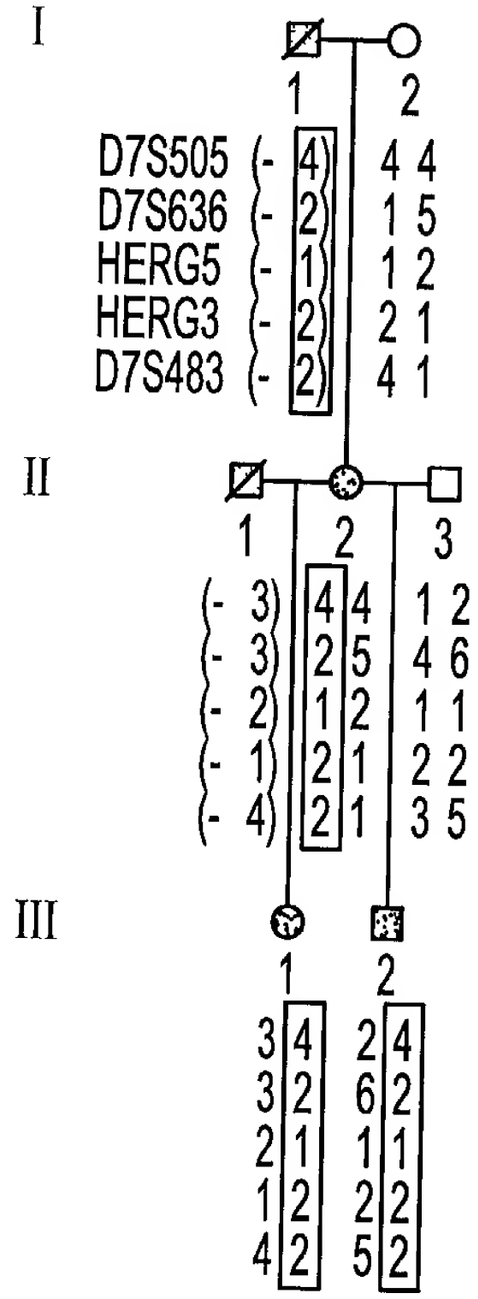

FIG. 9D

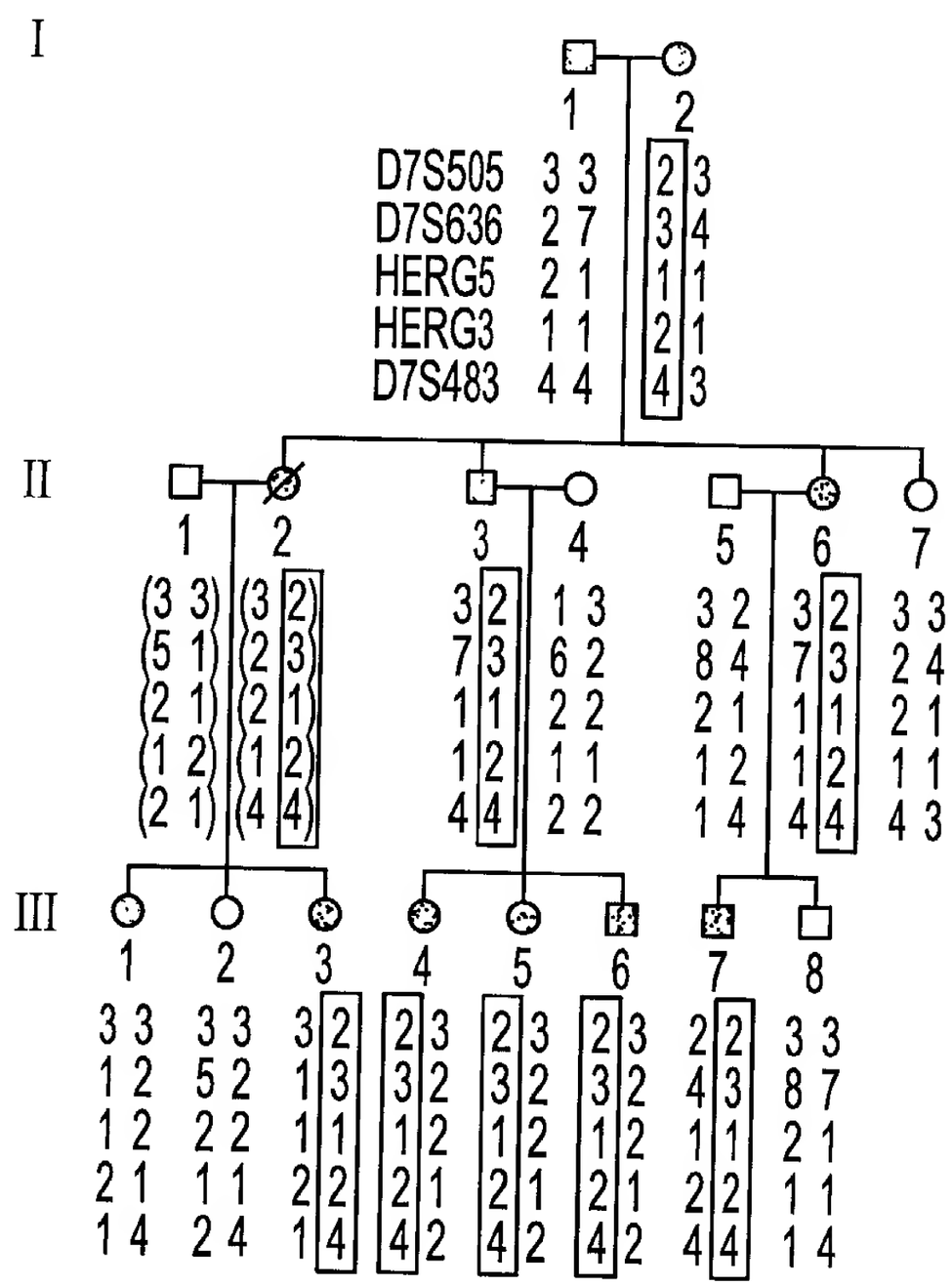

FIG. 9E

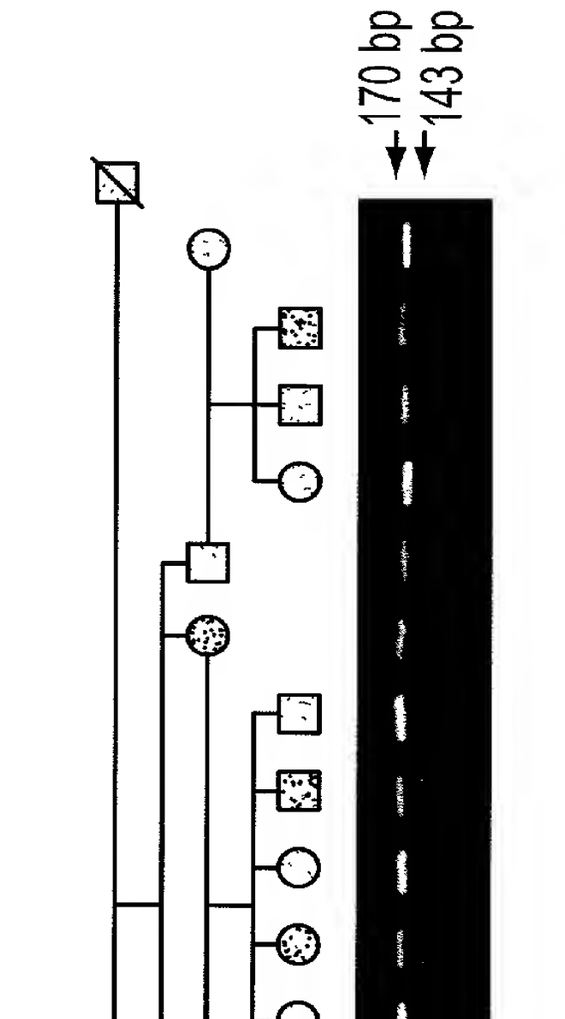

FIG. 10A

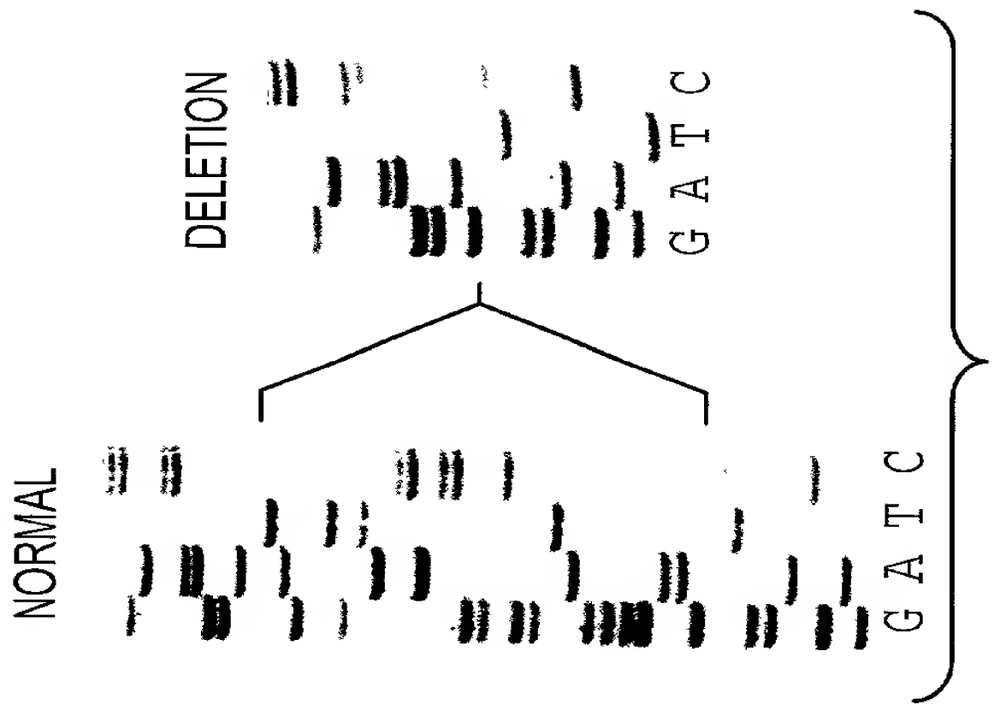

FIG. 10B

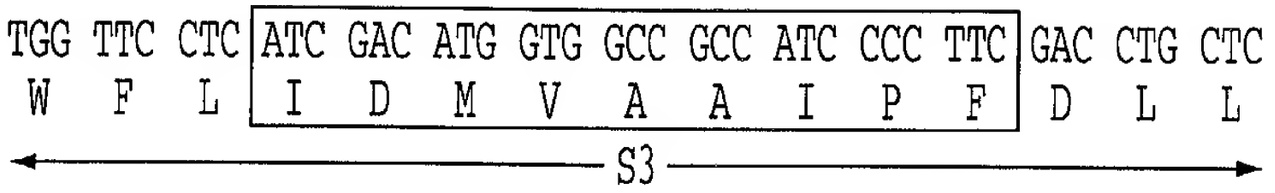

FIG. 10C

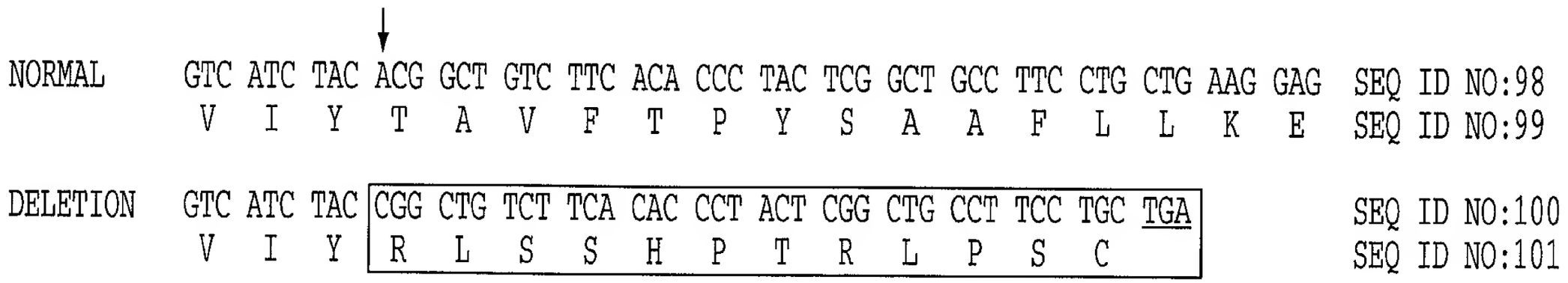

FIG. 11C

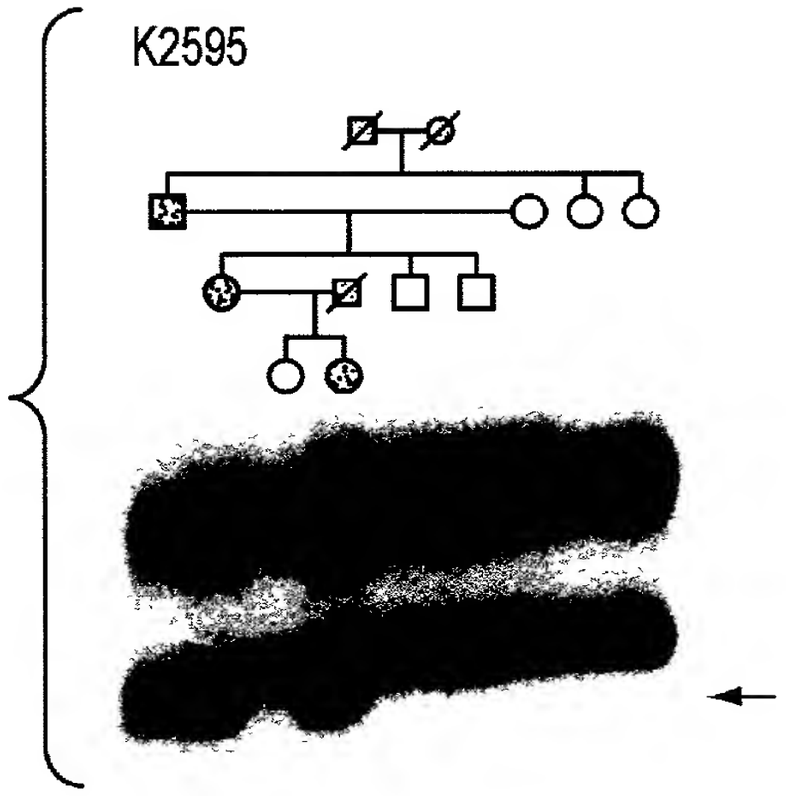

FIG. 11A

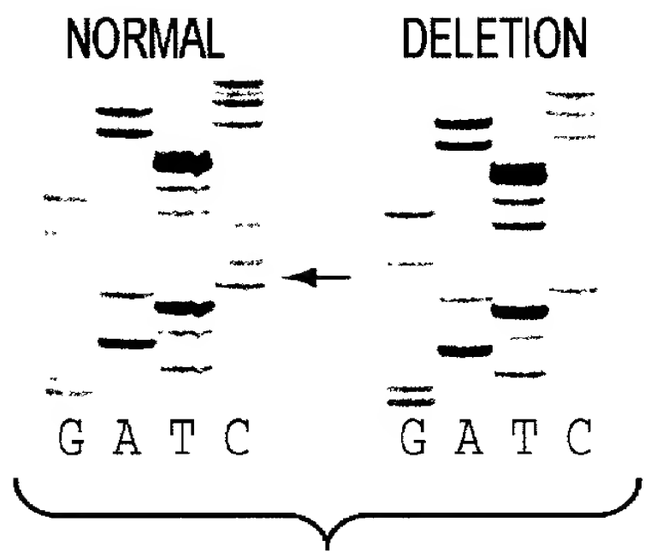

FIG. 11B

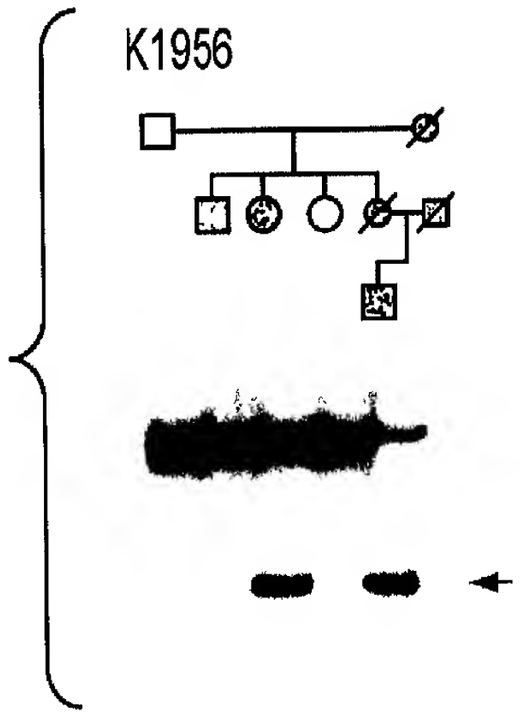

FIG. 12A

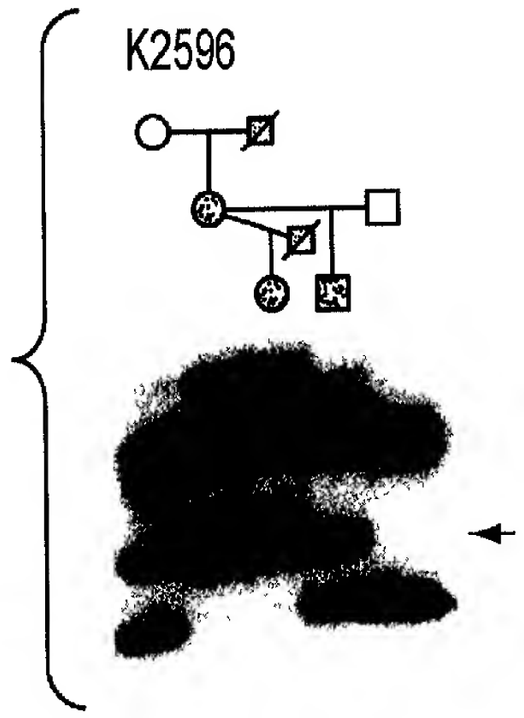

FIG. 12C

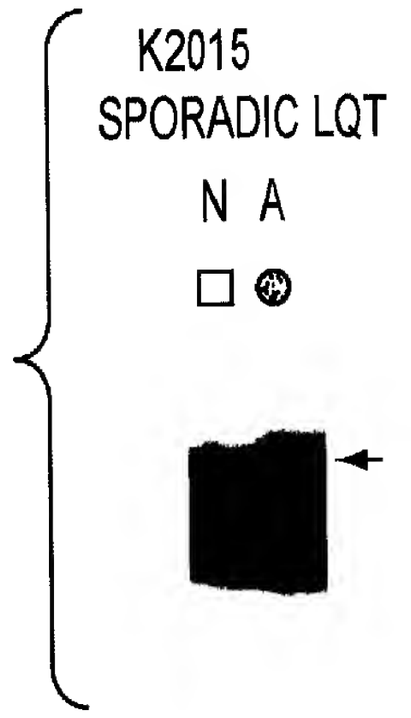

FIG. 12E

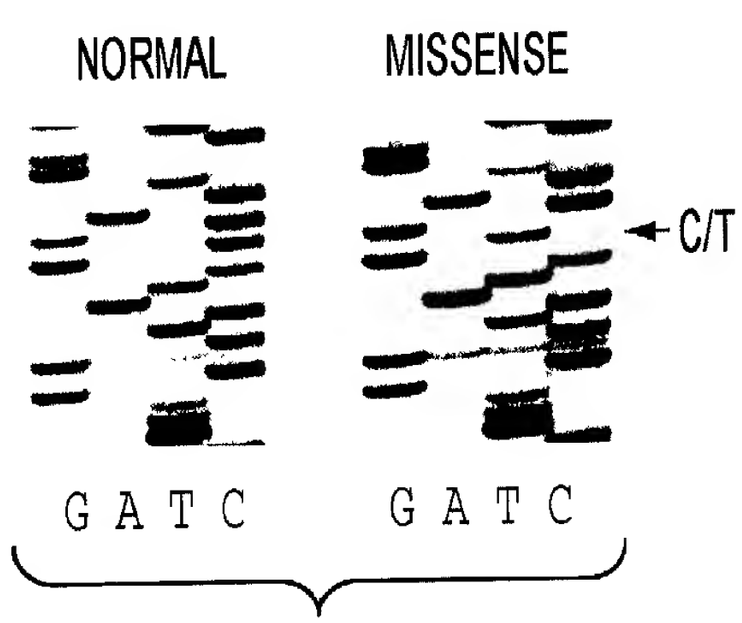

FIG. 12B

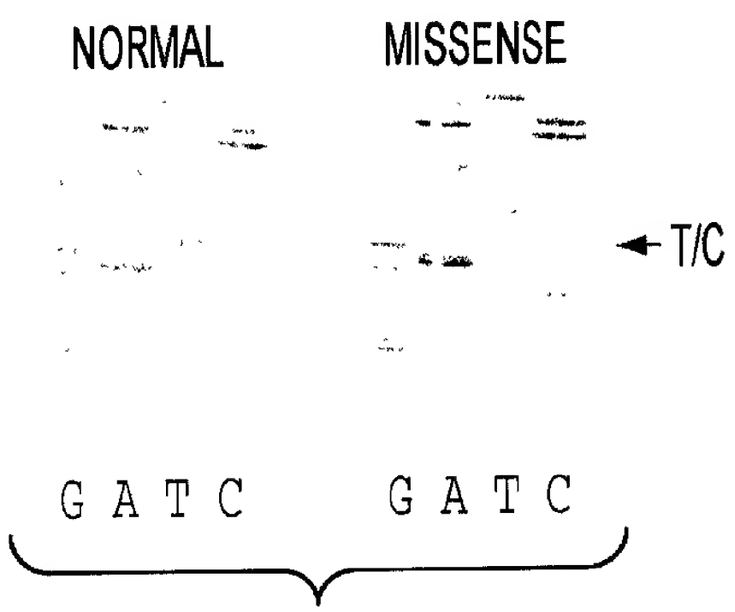

FIG. 12D

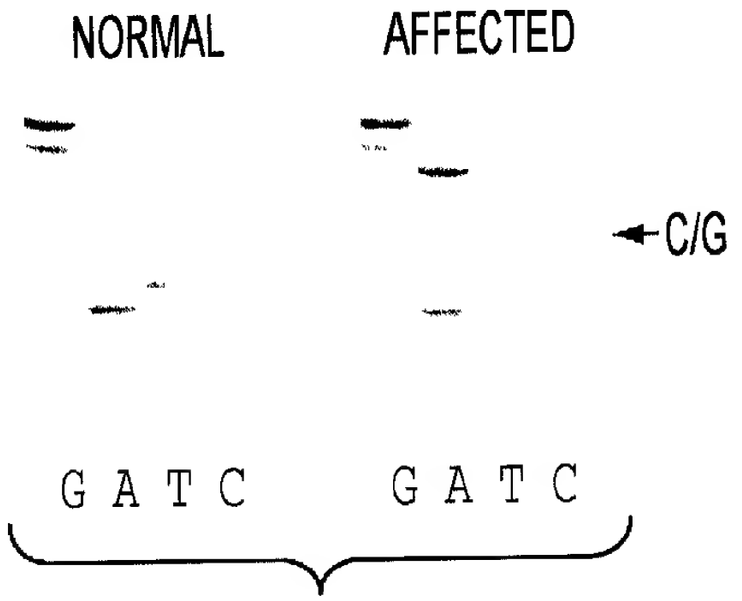

FIG. 12F

	GTG→V GCG	SEQ ID NO:
	L I A H W L	102
	←S5→	
K1956	L I V H W L	103
H-Erg	L I A H W L	102
M-Eag	L A A H W K	104
R-Eag	L A A H W M	105
Eag	L V A H W L	106
Elk	L A A H W L	107

FIG. 12G

	GAC→D AAC	SEQ ID NO:
	D I L I N F R	108
	←S2→	
K2596	D I L I D F R	109
H-Erg	D I L I N F R	108
M-Eag	D I V L N F H	110
R-Eag	D I V L N F H	110
Eag	D I V L N F H	110
Elk	D I L L N F R	111

FIG. 12H

C
↓
5'-CAT CCT GG // gtatggg-3'

FIG. 12I

FIG. 13A

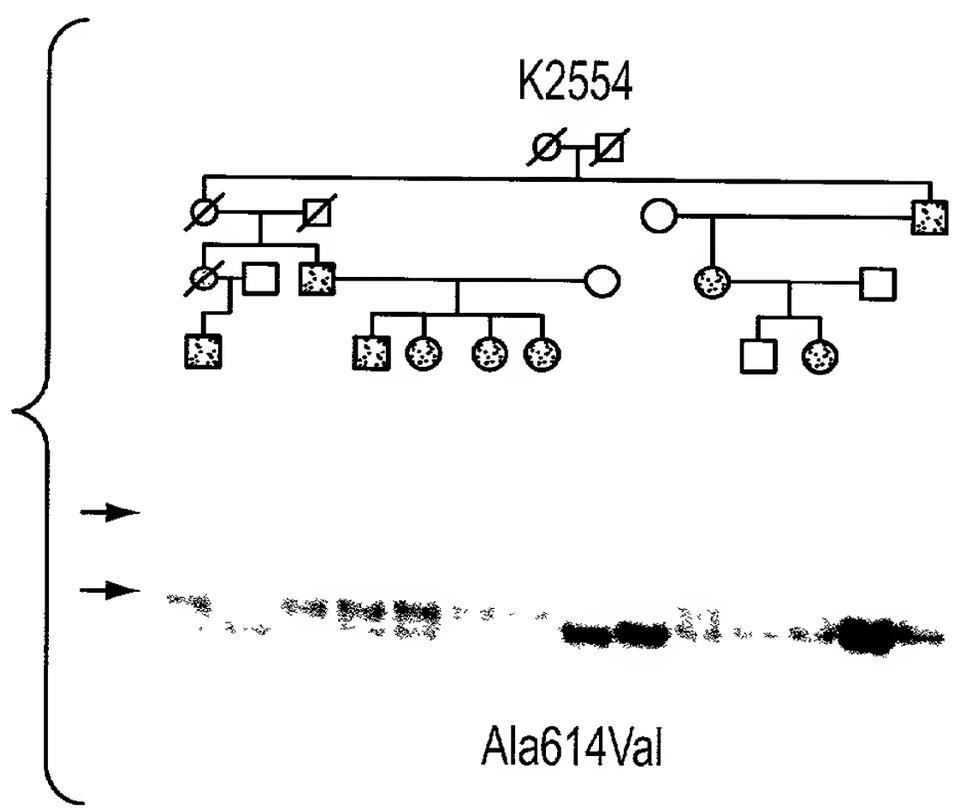

FIG. 13B

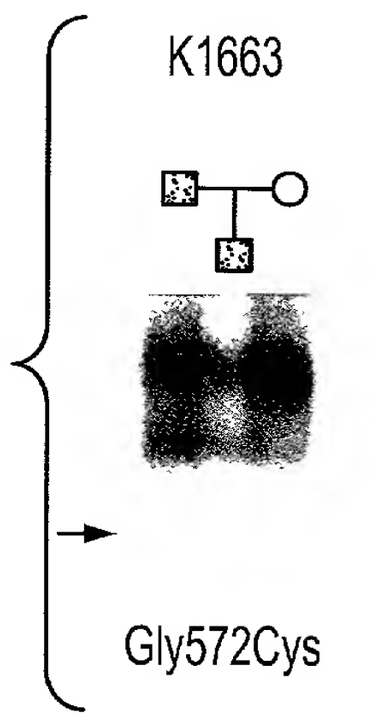

FIG. 13C

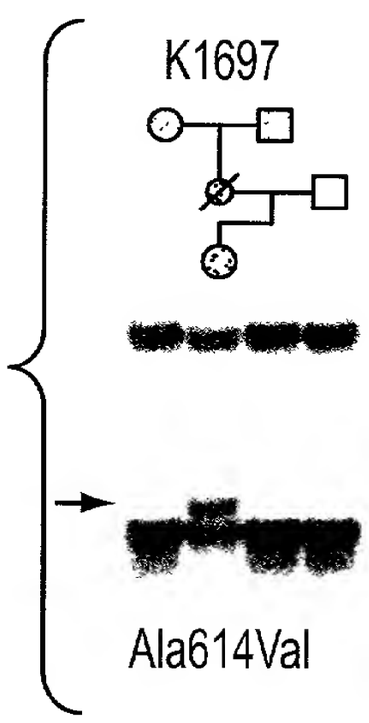

FIG. 13D

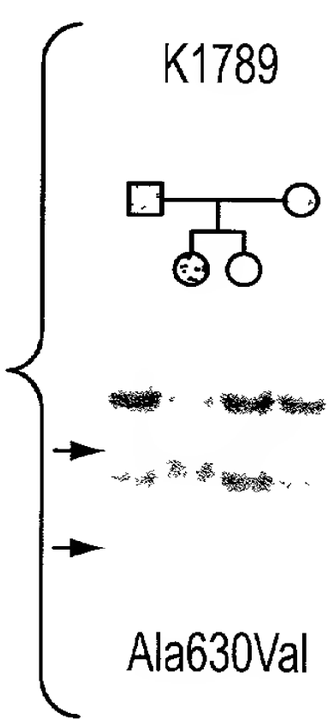

FIG. 13E

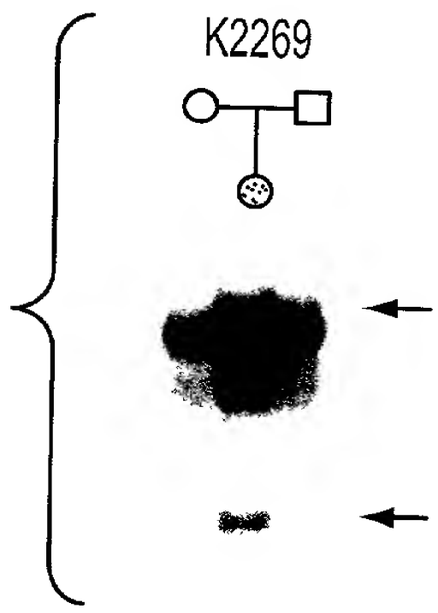

FIG. 14A

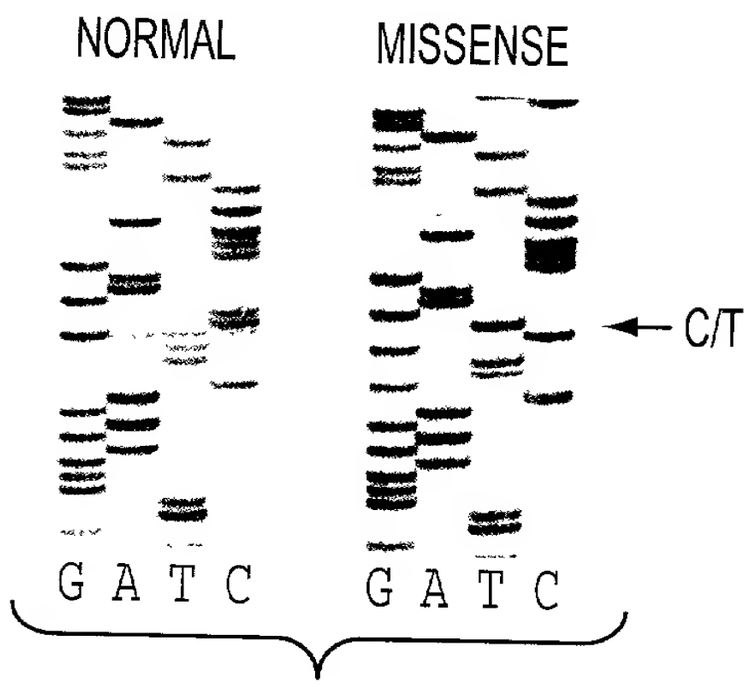

FIG. 14B

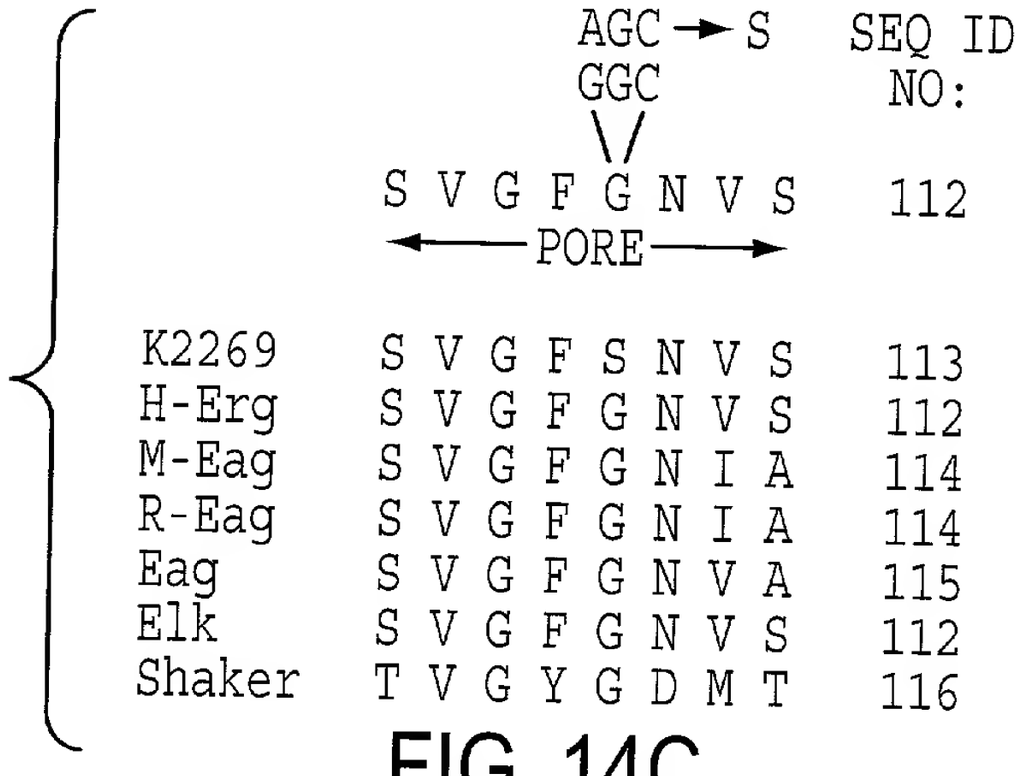

FIG. 14C

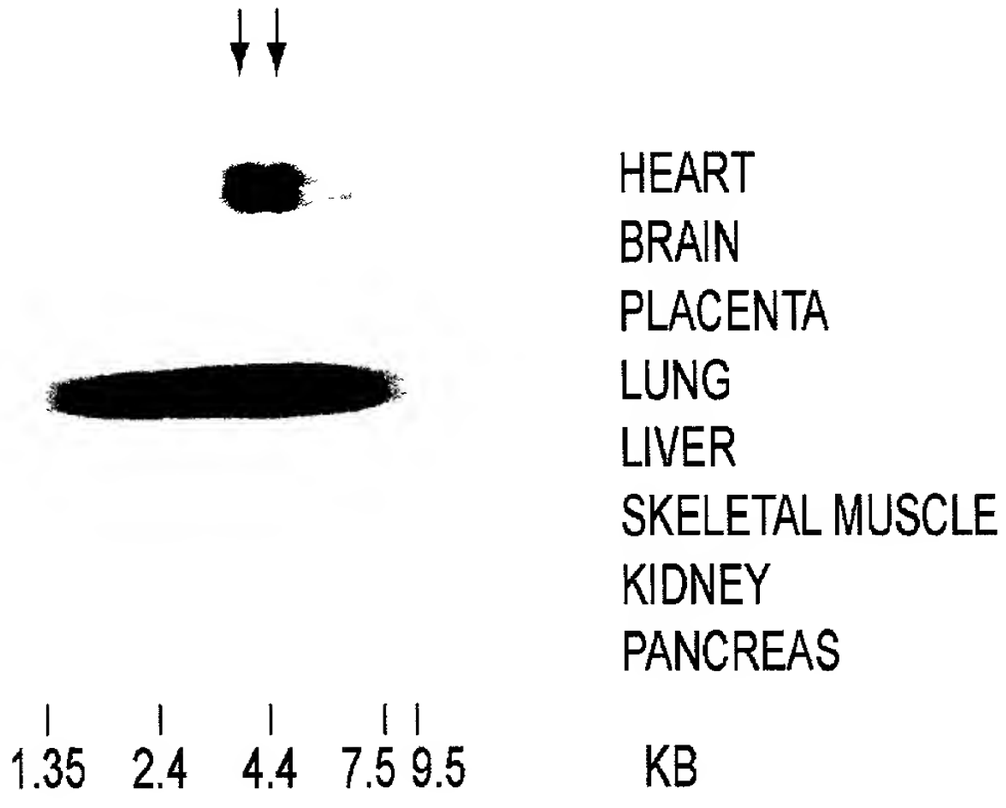
HEART
BRAIN
PLACENTA
LUNG
LIVER
SKELETAL MUSCLE
KIDNEY
PANCREAS
1.35
2.4
4.4
7.5
9.5
KB

FIG. 15